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Time and Motion Factors

In candy plant operating costs

by BETH McCURDY

Part I. Methods of Attack

THE road to success and profit for the candy manufacturer today is a three-lane highway on which each lane must carry its share of the traffic. The three lanes represent production, sales and earning power. Take away any one of these lanes and your traffic almost immediately gets into a tangle that even super-direction cannot solve.

For the purpose of this discussion we can eliminate the sales angle, since the sales division operates from the front office and the road and its main concern, so far as the factory is concerned, is to get the orders packed and on the way to the customer on time and in good condition. In this discourse we are going to talk about the goods and the methods used to get it on the way as efficiently as possible and at the same time increase the earning power of the factory help and increase the profits of the manufacturer.

Every manufacturer is faced with the problem of cutting costs. In the past few months he has been forced to revise his cost figures many times, for raw materials prices are still mounting, labor rates are going up, and there is an added uncertainty because of the priority situation on certain machinery and equipment. These things the individual manufacturers cannot govern. But there are other things he *can* govern and just at present they seem to be the only available sources of cost reduction open to him.

The logical place for reductions in cost of running his factory is in the various factory operations themselves. The reductions may be accomplished by: 1. driving his operators and workers; 2. by use of incentive and wage payment and bonus plans; 3. by eliminating waste and through the use of scrap; 4. by reducing quality of ingredients and materials; 5. by effective planning and proper factory layout; and finally 6. by change in methods.

Most workers do not respond to continuous driving and the result of such a policy is often friction between management and employees. Incentive and wage plans of one sort or another are used already by most companies, although some of these could be made much more effective. Elimination of waste and the economic utilization of scrap are items which have drawn the attention of most manufacturers for many years and are being watched carefully all the time. Reduction in the quality of ingredients and materials have a way of showing a detrimental affect on sales due to loss of appeal and durability in the goods.

That leaves us with just two more means of reducing cost of operations in the factory: 1. Effective planning and proper layout of production lines, and 2. Change in methods of carrying on certain operations. It is with these last two factors that we will deal in this series of articles.

Often I have walked through a candy plant with the manager or superintendent and heard him comment: "We are so accustomed to seeing certain operations done in a certain way for such a long time that we accept them without question." My reply to that is that when a manufacturer reaches the point where he accepts production as it is and is completely satisfied with the status quo, progress in his factory has already thrown out the anchor. Two courses are open to him at this point: He can either remain stationary while others go ahead, or, he must make changes, get in new blood and streamline his production to the newer concepts of progress.

To the manufacturer seriously considering the problem of putting his factory at peak efficiency there are three common methods in use today from which he can choose to plan his new layout, set rates and train employees. The first is simple observation. The second is time study. The third and most important is motion-time analysis. We are going to discuss each one of these phases separately in order to get a general non-technical idea of each, keeping in mind the possible application of each to the every-day problems in the candy plant.

The Observation Method, Its Benefits and Limits

In the simple observation method someone in the factory is selected by the management to observe, in detail, certain operations in progress, make such changes as he believes will improve the operation, set the wage rate covering this operation based on the daily output,

Have you ever wondered why a certain operation in your plant was losing money? And have you ever been completely baffled by the answer to this kind of problem in spite of all you could do to locate the trouble and pin down the actual cause of your loss? Motion Time Analysis would have located the trouble. Beginning this month, we are bringing a series of four articles on this subject by an author, a former candy factory worker, who has made Motion Time Analysis her special interest. The material discussed here is taken almost exclusively from candy factory experience.

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and direct someone to teach the other operators in the "improved" method. In this case there is no real diagnosis of the operation and consequently, no records of any kind are available to portray the improvement (if any) of the whole operation or its integral parts. Thus, when a wage rate for this operation is set, it usually remains as long as this particular operaton continues, unless some drastic change takes place, new equipment is added, or the like.

This method is, of course, the easiest and most convenient of the three, and because no additional engineers, time study men or analysts are required for it, it costs the least. But were I a manufacturer employing many workers some of whom were making up to 60c an hour and $26 a week, I should certainly want to be sure these employees were not only fast workers, but that they were doing the job with a minimum of energy and movement and a maximum of efficiency, and that a trained person was seeing that the job was done that way.

One Chicago plant using the observation method has found it very satisfactory to train employees by means of motion pictures of various operations. Needless to say, a fine training program may be conducted in this way. The films may be slowed down to give a better view of intricate operations and the trainees are more easily guided through the difficult processes. The films may also be shown several times so that a clear visual picture is retained. But even in this case, these films are made merely of operations as they are, merely an observation study. What the trainees are seeing may not necessarily be the "best method" and for this reason the films are not of as much value as they would be were they showing a carefully diagnosed and analized operation.

In this particular case I noticed a lack of standardization of methods used, for instance, to pack the same items. I watched three girls filling stock boxes with candy bars from a conveyor. Each of the three had her own way of performing the operation. One picked up, simultaneously, a bar in each hand and placed them in the box. Another picked up two bars in each hand, one between the thumb and first finger and the other between the first and second fingers, and was thus placing four bars in the box with the same movement. The third girl alternated her hands, picking bars off the conveyor with one hand and placing them in the box with the other. All three girls were working fast and apparently well enough. However, somewhere in the three methods was the "best method", but the simple observation of the operation would not reveal which it was. It may even be that none of the three methods was the best, but again, the rule of "watch your neighbor and get the idea" used in training for this comparatively simple operation was permitting three distinct methods to be used when it would have been a simple thing to work out a "best method" and make this standard practice for this work.

The Time Study Method In Confectionery Plants

There are several systems of time study employed in the confectionery industry. Basically, they follow the same routines, but differ in the finer points, such as, dividing an hour's work into a certain number of units for recording daily operations. Thus, regardless of the type of work, it is broken down on the unit-hour basis. Other systems, not so complicated, simply use a stop watch to determine the speed of an operation, or any part of it, either manual or mechanical, and determine a proposed output per person or machine, using the best operator's time, or an average of the time of several operators.

Time study originally was intended primarily as a method for developing new and more efficient methods, secondly, as a means of setting correct rates. F. W. Taylor, the father of time study, hoped to standardize the "elements" of studies and use these elements as a basis. Howver, because time study men could not agree on the "elements," the methods used now are principally for rate setting. This is, however, a definite step ahead of the observation method.

Time study personnel may range from part-time workers in factories having from 150 to 300 employees, to as high as groups of three in factories employing from 400 to 600 workers. These people may be merely someone who can read a stopwatch, but in many cases they are graduate engineers. The wide variation in the persons used for this work depends entirely upon the type of system used.

There is always one discouraging feature in clockir stopwatch readings. Operators, knowing they are being timed and that a rate will be based on their reading, will almost invariably slow down during the reading, either by actually doing the work slower or by using a slower method, so that the rate will not be too high. As this stopwatch record is the only means for setting the rate, its accuracy is most important. However, an experienced clocker will know how to take the reading in such a way as to obtain the true picture.

Unless the time study man has been specially trained, he will not be able to determine what are the best methods to use, but only rates on the method he has observed. But he records his readings, may also diagram the operation, notes the number of operators required, notes the rate, and files this information for future use. In other words, this is a more definite method of setting rates than mere observation, and a record is available to which management can refer for actual experience on parts of operations or on the entire operation, including rates, when a new line is planned.

Motion-Time Analysis Gives Complete Coverage

Were the time study man faced with the problem of timing the three above-mentioned bar packers, he would not question the three different methods used. He would take a stopwatch reading on all three girls, get the average time and use this as a basis for his rate. Or, he would use the time of the best girl for his rate, and hope that the others would use her method after he put his rate into effect, providing their present method was not fast enough to make his rate.

The motion-time anaylsis method is far ahead of the

first two systems. Frank Gilbreth discovered that all motions used in industrial operations could be classified into 17 kinds. Then, A. B. Segur established the relationship between the "time elements" and "motion", and motion-time analysis is the result. The aim of motion-time anaylsis is to "provide a language of skill by which the employer and employee can come to a common understandng on rates and working conditions, to eliminate waste, and to enable the worker to increase his productive capacity and his wages without increasing his effort."

This aim is actually realized by determining what standard equipment and what procedure should be followed, and then training the employee. This is accomplished by (1) a survey or analysis of the "best" present method; (2) a detailed study of the analysis and application of improvement principles of motion-time analysis in order to set up a new standard method to be taught the operators; and (3) the installation of the revised method. Motion-time analysis can also be used to set new methods and rates *before* a new item is in production. This is possible because the analyst knows the time elements in fractions of a minute of the movements required to perform the operation. Thus, cost labor rates can more accurately be secured before production starts.

In making a comparison between motion-tme analysis and time study, I cannot help but think of a striking incident that happened to me in a large candy factory a year or so ago. I was to propose the "best method" of hand-wrapping an odd-shaped box with cellophane, using the least amount of material. It was an extremely difficult box to wrap even for an experienced operator, but I worked it out as best I could, using what I knew about motion-time analysis, wrote the analysis, and set a tentative rate for piece workers with experience, and a lower rate for beginners. These rates were never used, of course, except to show the time study dpartment what possibilities motion-time analyss possessed. But the time study engineer said the job "couldn't be done that fast" and put the analysis away.

When production started, all experienced girls were used elsewhere and it was up to me to train eight new girls for this work, girls who had never worked with cellophane. The time study department gave us three days to get familiar with this work and then took stopwatch reading on the best girls and set a rate. This rate was far below my beginner rate, but these girls were not experienced beginners yet and certainly not fast enough to make a logical piece work rate. However, by the fifth day several of the girls made a substantial bonus on the time study rate. Realizing the danger of such a loose rate, the rapid daily increase showing a large bonus which would undoubtedly be questioned and the bad effect of setting a new and tighter rate, the operation was taken off piece work basis and put on straight time. Naturally, the workers felt they had been "gypped" and took the attitude that as long as they were not on any special rate and the company did not seem to care how much production they made, why should they work too hard. They didn't.

With respect to the three methods used by the girls who were packing candy bars in boxes, the motion-time analysis method would be to study each in detail. Then writing the analysis comparing the operations, the analyst would more than likely dscover the poorest method to be the one where one hand was used to take and the other to pack. The next best would be the one where two bars were taken in each hand at the same time and placed in the box at the same time, since the eyes could follow the hands from the belt to the box. The best method is the one where each hand takes two bars and deposits the four together in the box at the same time, for again, the hands and eyes are going through the same motions, but accomplishing twice as much as the No. 2 method. With this fact established, the analysts would recommend that all workers doing ths work would be tained in No. 3. Then to check, the analyst will time various parts of the operations to see if the operators are doing each part with the right motion paths and in the right time. He has the correct time on his initial analysis, so he can easily determne where the operator may be going astray.

The number of analysts for a factory is determined by the amount of detail required by the management. One Chicago plant, a leader in the field, has a large industrial engineering department with a motion-time analyst for each large factory department and one for each two of the smaller rooms.

In following issues—Miss McCurdy will continue her series with three articles covering the following topics:

1. **Training Employees**
2. **Setting Rates Through Motion-Time Analysis**
3. **Generalization and Conclusions**

Next month we will bring the first of two articles on theuse of handicapped persons for certain work in the candy plant, written by Theodore Brimm, Illinois State Employment Service. These articles are based on investigations made and data compiled by the Employment Service in several plants.

September Sales Are 18% Ahead of 1940

Sales of confectionery and competitive chocolate products for the month of September, 1941, were 18% ahead of sales for the same month of 1941, it was reported by the Department of Commerce, Bureau of Census. For the first nine months of this year, sales were 15% higher than at the three-quarter way mark in 1940. The increase in sales between August and September and August was reported as 57% this year. In contrast to the rise in dollar sales, pounds of confectionery and competitive chocolate products rose only 9% from the same month of 1940. This resulted in the increase of 1.3%; in the average value, from 15.1 in September 1940, to 16.4; in the same month of 1941. All types of houses participated in the increased value.

Confectionery Clubs of Baltimore Hold Annual Banquet

The 14th Annual Joint Banquet of the Confectionery Clubs of Baltimore, sponsored by the Confectionery Salesmen's Club of Baltimore, including manufacturers, jobbers and salesmen, will be held at the Lord Baltimore hotel, Saturday, December 13. Ticket information may be obtained from W. C. Meyers, Jr., at 1505 W. Baltimore Street, Baltimore, Md.

Peerless Confection Company, Chicago, and Lamont, Corliss & Co., New York, were recently awarded contracts by the Army's Quartermaster for hard candy and Ration D confection, respectively. Peerless will supply 325,150 pounds of hard candy valued at $35,449.48, and Lamont, Corliss will supply 600,048 cakes of D Ration at $33,002.64.

Identification of Fats

Recognition important to candy quality

by K. E. LANGWILL

With economic conditions as they exist to-day, the identification of fats is of major importance. Many contributory factors have created this state of affairs. Decreased shipping facilities make us more dependent upon limited domestic sources of supply; substitutes are being offered in the trade and combinations of oils and flavoring materials, usually of natural origin, are making it possible to produce blends that are sometimes accepted by the inexperienced as genuine articles. While the confectioner may not be as vitally interested in oils and fats as some other specialized food manufacturers, still he should be aware of what is happening in this field and be prepared to make the necessary adjustments.

It is realized that it is next to the impossible to consider methods for the identification of fats or oils without becoming somewhat technical. This is due to the fact that all such methods depend upon definite and carefully exercised chemical or physical control, or both. As we proceed from one step to another, an attempt will be made to do so in as general a manner as is possible. If more detailed information is desired, it may be obtained by referring to the treatises listed as references.

With these thoughts in mind, suppose we now consider the composition of a fat. Any fat can be defined as a glycerol ester of fatty acids and, since three fatty acids combine with one part of glycerine to form a fat and since the three fatty acids may be similar or dissimilar, as the case may be, we can see the problem with which we are faced. The glycerol radical (C_3H_5) is present in all fats. Our interest, therefore, centers around the identification of the fatty acid radicals.

Certain well known tests have been developed to aid us in determining what kind of acid radicals are present in the fat under examination. After applying these tests to the unknown fat and obtaining a series of constants, they may then be compared with values obtained on samples of known purity. The tests referred to are more or less general but some specific tests do exist as, for example, the Halphen Test for cottonseed oil and the special test for arachidic acid used in the identification of peanut oil. There are exceptions to even the specific tests, for cottonsed oil may not respond to the Halphen Test after prolonged heating or hydrogenation.

Important Constants

The saponification number of a fat or oil gives us an indication as to the type of the fatty acid radicals. In general, the smaller the molecular weight of a fat, the higher its saponification number or, in other words, the mean molecular weight of the fatty acids present in any individual fat is inversely proportional to the saponification number.

Another test of importance is known as the Reichert-Meissl number. Its value depends upon its ability to show the presence of the lower (smaller) fatty acids. This value is reported in term of the amount of alkali required to neutralize the *soluble* volatile fatty acids distilled from five grams of fat. The fatty acids contained in the distillate usually include butyric, caproic, caprylic, capric and lauric. Butyric acid is completely soluble in water while lauric acid is only slightly soluble in large quantities of boiling water. The volatility of the fatty acids with steam diminishes rapidly as the molecular weight increases. Since distillation does not carry over all the volatile fatty acids into the distillate, it is important that this test be carried out under uniform conditions so that results will always be comparable.

The Polenske number is often mentioned along with the Reichert-Meissl number. It measures the amount of alkali required to neutralize the *insoluble* volatile fatty acids distilled from five grams of fat. Fats having appreciable Polenske numbers (more than 3) are coconut, palm and palm kernel oil.

The standard test for determining the proportion of unsaturated fatty acids in a fat is the familiar iodine absorption value. This gives us the number of grams of iodine absorbed by 100 grams of fat. In reporting this value it is well to state the method—Wijs or Hanus Method—by which the results are obtained since in the first case iodine chloride is used as the reagent and in the other case iodine bromide. The Maumené number also depends upon a determination of the proportion of unsaturated fatty acids present but it is not employed as universally as the iodine number.

Physical tests which are frequently made on fats include specific gravity, refractive index, slip point, melting point and solidification point. The differences observed

in these constants are again due to differences in the fatty acids present. The refractive index affords a quick method of sorting fat and oil samples which may be of questionable origin. Its main advantage lies in the fact that only a drop or two of the fat is required. Because fats are mixtures of glycerol esters, they do not show sharp melting points. As in the case of the iodine number, the method employed should be recorded and reported with the results. As an example, the capillary tube is generally used to determine the slip point, while the Wiley apparatus is used to determine the actual melting point.

In available references, one may find constants for the more common types of fats and oils but these values are sometimes of unknown origin and many years old. In addition, types of fats and oils have changed greatly during the past few years. We are no longer dependent upon natural products to fill our needs for the process of hydrogenation and the ability to separate solid fats from liquid oils by mechanical means has changed this whole picture. In preparing these fats, the process may be stopped at an intermediate stage with the result that fat of desired characteristics can be obtained. The mechanical separation of the lower and higher melting point fractions of a natural fat or the hydrogenation of its unsaturated fatty acid radicals will affect many of its constants. Enough of them remain unchanged, however, so that it is still possible to identify the original fat if a sufficient number of constants are determined.

Comparison of Data

With these facts before us, it will be of interest to compare constants found in various reference books with results obtained on commercial samples of some representative fats which were purchased on the open market during the last few months. In reporting these values in Table 1, constants determined in the laboratory will be designated by (L) and those found in reference books by (R).

It will be noted that only one sample of cocoa butter was examined. Its constants, with the exception of the low Reichert-Meissl and Polenske values, fall within the limits recorded.

Milk fats (a) and (b) were obtained from two different sources; (a) was extracted from powdered whole milk and (b) from dairy butter. It is surprising, therefore, to have the constants of the two samples agree so closely. Considering the differences in method of manufacture, one sample being almost completely dehydrated and the other containing over 10% of moisture, one might expect a greater variation.

In the case of pressed palm kernel butter, we find it necessary to compare the constants with those reported on the oil since values for modified types of fats—pressed butters and hydrogenated fats—are not listed. The effect of the pressing operation is noted on all constants but one, namely, the refractive index. The melting point of the pressed butter is raised considerably above that given for the oil. The removal of the lower melting point fractions causes the iodine number to drop since the liquid portion of the fat contains the greater percentage of unsaturated fatty acids. The lowering of the saponification number may be explained by the fact that, after pressing, the fatty acids of higher molecular weight remain behind. As has already been pointed out, the higher the molecular weight of a fat the lower its saponification number. Both the Reichert-Meissl and Polenske values have decreased due to the partial loss

TABLE I

	Wiley Melting Point	Iodine No.	Saponification No.	Reichert-Meissl No.	Polenske No.	Refractive Index at 40°C
(L) Cocoa Butter	86.4°F	35	192	0.1	0.2	1.4568
(R) Cocoa Butter	83-91°F	32-38	192-202	0.2-0.8	0.5	1.4565-1.4570
(L) Milk Fat (a)	95.0°F	32	229	28.3	1.9	1.4536
(L) Milk Fat (b)	93.2°F	32	228	29.9	2.3	1.4540
(R) Milk Fat	83-95°F	26-38	221-233	24-34	1.3-3.0	1.4530-1.4560
(L) Pressed Palm Kernel Butter	114.1°F	1.8	238	4.6	7.1	1.4496
(R) Palm Kernel Oil	76-86°F	16-23	244-255	4.8-7	9.4-11	1.4492-1.4517
(L) Coconut Oil 76°	78.0°F	9.2	253	7.7	12.9	1.4492
(L) Pressed Coconut Oil—84°	86.7°F	5.8	249	5.9	10.4	1.4493
(L) Hydrogenated Coconut Oil	107.2°F	2.2	250	8.5	15.5	1.4486
(R) Coconut Oil	72-81°F	8-10	246-260	6-8	15-18	1.4477-1.4495
(L) Peanut Oil	—	96.0	187	0.3	0.3	1.4689 at 25°C
(R) Peanut Oil	—	85-100	186-194	0.2-0.5	0.1-0.3	1.4680-1.4707
(L) Soya Bean Oil	—	133.3	189	0.3	0.4	1.4731 at 25° C
(R) Soya Bean Oil	—	124-148	189-194	0.2-0.6	0.2-0.6	1.4723-1.4756
(L) Hydrogenated Cottonseed Oil	140.7°F	3.9	195	0.5	0.7	1.4468 at 60°C
(R) Cottonseed Oil	—	105-115	191-196	0.7-0.9	—	1.4668-1.4720 at 25°C

References: "Vegetable Fats and Oils" by Jamieson; "Food Analysis" by Woodman; Ninth Edition of Handbook of Chemistry and Physics.

of volatile fatty acids.

Proceeding to the samples of coconut oil examined, we are able to compare the effect of both pressing and hydrogenation on the same fat. It was assumed that the 76° oil was a natural untreated oil. Its constants, with the exception of the Polenske number, fall within the limits reported. Constants on the pressed butter follow the same line of deviation from the oil constants as were noted with pressed palm kernel butter. The melting point is increased, iodine, saponification, Reichert-Meissl and Polenske numbers are all decreased. With the hydrogenation of coconut oil, we obtain a still further increase in melting point, a decrease in iodine number and little change in the saponification number. The Reichert-Meissl and Polenske numbers are unaffected by hydrogenation and the refractive indices of all three samples examined vary but slightly.

Few comments are necessary on results obtained with peanut and soya bean oil since the constants are within the range given in the literature. It will be noted, however, that with liquid fats the iodine number is exceedingly high due to the presence of an increased percentage of unsaturated fatty acids. The saponification numbers are lower than for the fats previously considered indicating the presence of fatty acids of higher molecular weight. The almost negligible Reichert-Meissl and Polenske numbers bear out the fact that few of the fatty acids of low molecular weight are present.

The last comparison was made between a hydrogenated and an untreated cottonseed oil. In this case, hydrogenation was carried so far that the oil was changed from a liquid at room temperature to a hard brittle product. This caused an enormous drop in the iodine number because most of the unsaturated fatty acids were changed to the corresponding saturated ones. Other constants remained practically unchanged.

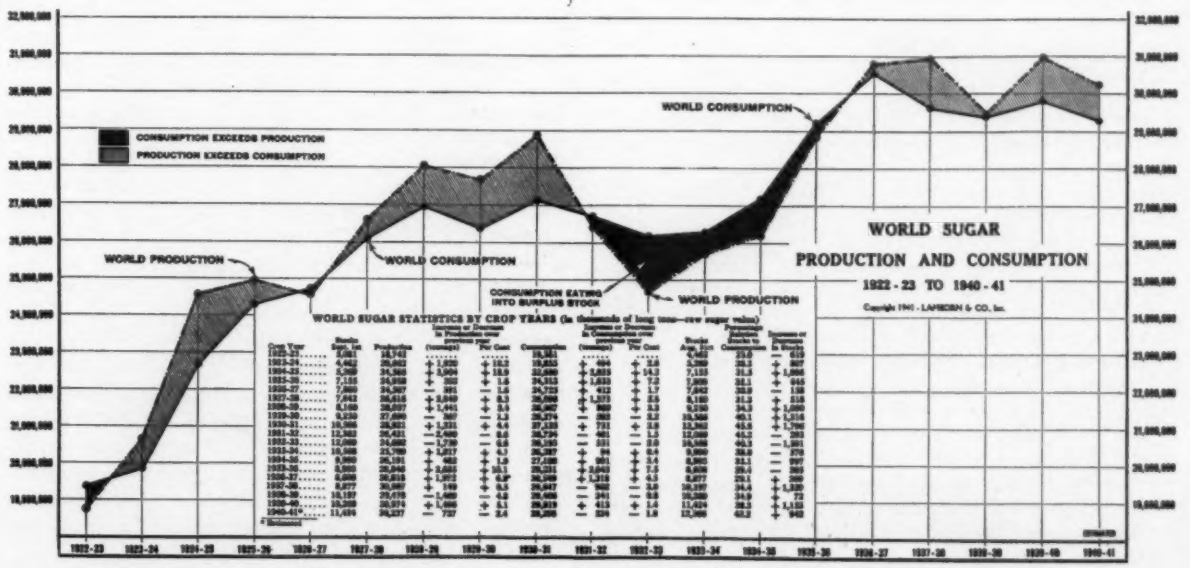
In concluding, it must be remembered that it is impossible to identify a fat or oil by determining only one constant. This problem of identification may be compared to a jig-saw puzzle. The constants represent the pieces of the puzzle and all these pieces must be of the proper size in order to fit together and give us the complete picture.

Defense Orders to Be Spread More Widely

The War Department has announced that the Quartermaster Corps has taken steps to spread as widely as possible the future national defense orders for the many items of supplies, materials and equipment it procures for the Army. Of major importance in the new policy are two steps which will most directly affect business concerns, namely, 1. Awards for supplies, etc. will hereafter be made on a regional basis; and 2. Price no longer will be the determining factor in making awards. In carrying out the first part of this new policy, the maximum quantities awarded to any bidder will be limited and awards will be made to as many regions and as many suppliers in each region as is possible and practicable. Within reasonable limits, direct negotiations will be made with bidders in a particular region where it is desired to make awards, when the bid prices are considered too high. Every effort will be made to induce such bidders to accept a stated quantity at what is considered a fair price to them. Procurement officers also have received authority to rotate orders among responsible bidders. Under this plan, bids whether low or not, of previously successful bidders for any item or class of items involved, will be disregarded to the extent necessary to accomplish the principle of rotation and distribution of awards.

Walter Johnson Strike Ends with Pay Boost

A CIO strike which had suspended production in the plant of the Walter Johnson Candy Co., Chicago, for seven weeks, was ended November 3, when 373 employees returned to work. Following an outbreak of violence which occurred October 23 and resulted in the injury of two policemen and 12 pickets, Walter H. Johnson, president of the company, and Leonard Levy, regional director of the CIO union which called the strike, settled the strike by agreement upon a one-year contract for wage increases of 10 cents an hour, recognition of the union as the bargaining agent, and vacation and seniority rights.



EDITORIAL

Costs

It is rarely the sudden shock of catastrophe or accident that causes a business to fail. In most cases, management has insured itself against such eventualities. These things may be staggering in their immediate shock, but once the initial impact has been absorbed, a reasonably sound business soon regains its equilibrium. By far a greater percentage of irreparable loss comes from the stealthy and insidious attacks of inaccurate and inadequate cost record keeping. These attacks strike at the very foundations of a business.

In the candy factory the keeping of true cost records is as difficult a task as may be encountered in any business. There are so many places where leaks and cracks may appear in the cost-keeping structure that the wonder of it all is that so many firms continue to operate for so long at a seeming profit. Take the matter of rate-setting and cost accounting on certain hand operations in the candy plant, for instance. A single simple manual task in the packing of a box assortment may make the difference between profit and loss on that particular line. Yet we find a great many firms where the pay rates on work of this kind are established merely on somebody's say-so, or at best upon a single stop-watch observation without comparative study of other factors affecting the entire operation. In an industry which prides itself upon the perfection of its mechanical development for mass production, there need no longer be guesswork in matters pertaining to rate setting, methods of doing certain manual jobs that are still required, and training of employees in the "best" ways of doing certain things.

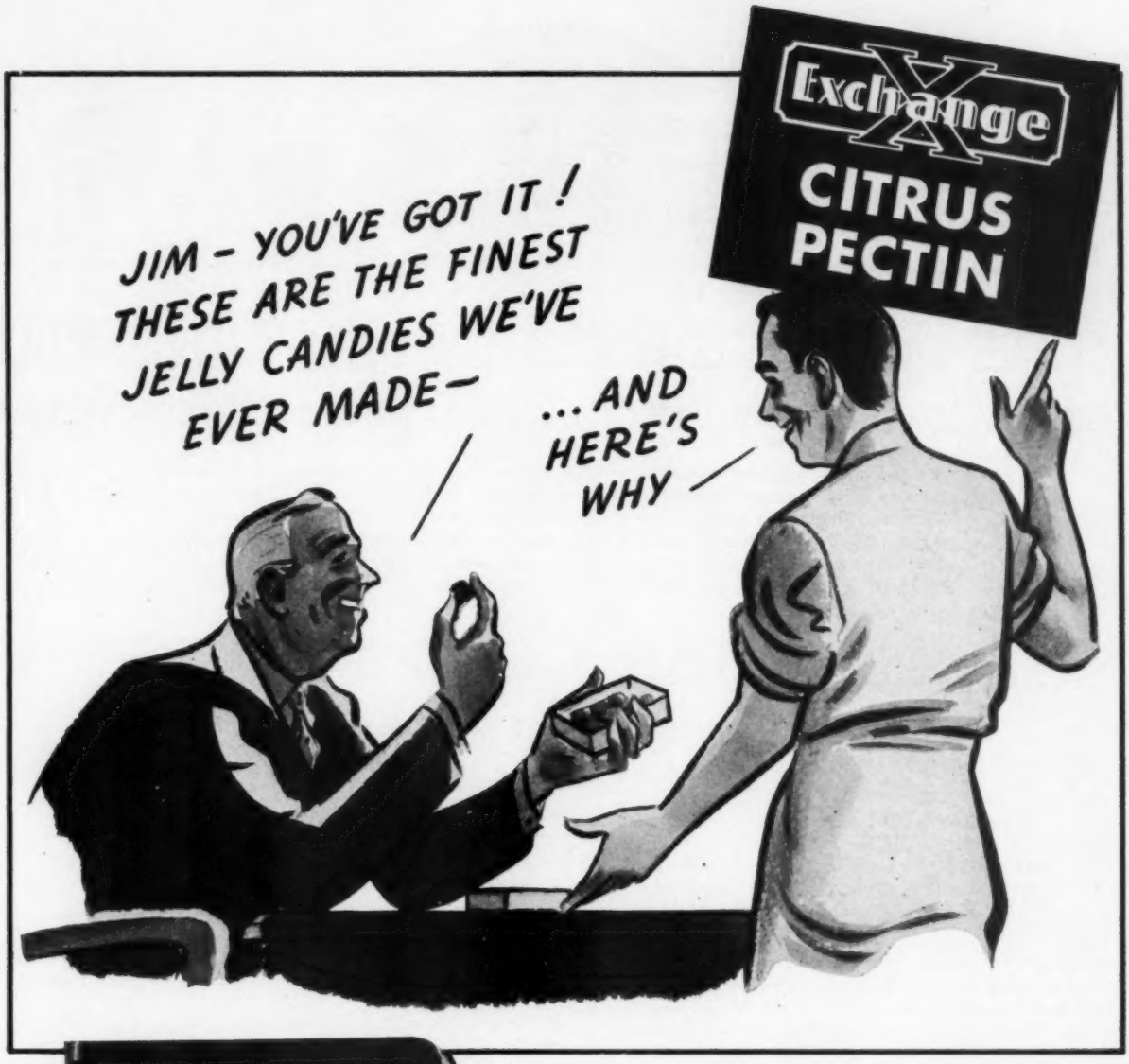
Starting with this issue, we will bring a series of four articles on Time and Motion Factors as they affect the cost of doing certain things in the candy plant. Our author is a woman who has had years of practical experience in outstanding major candy factories, particularly in the work of checking certain manual operations for time and other cost information, developing training programs in "best" methods, and setting rates for them based upon the factors of time and efficient performance. These observations are not theory, in any sense of the word, even though they are based upon a very definite theoretical conception of how true cost and rate figures ought to be obtained. Plentifully sprinkled through this entire thesis are numerous examples of how a scientific approach to the problem of obtaining efficiency of manipulation and accuracy of work rates actually does make the difference between profit and loss on certain lines. Interspersed with the articles covering time and motion factors will come two articles on a related subject—employment of physically handicapped persons in the candy plant—which should be of utmost interest at this time when national defense has brought about an acute shortage of available labor for candy plants in many areas.

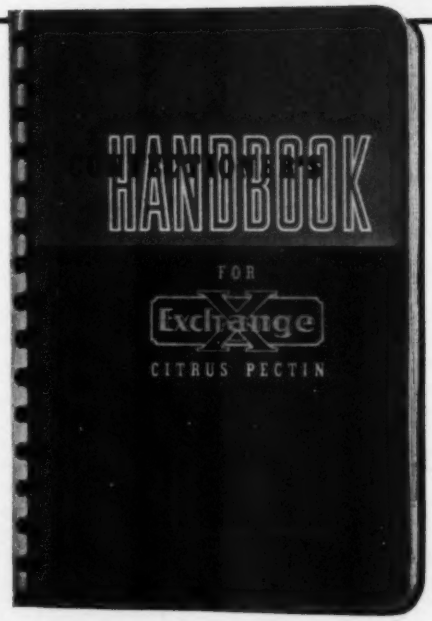
"Allocations" for Priorities

The newspapers of the country carried several stories under a Washington dateline during the week of Nov. 3 to 8, indicating that some plan of "allocation" of essential materials to defense and non-defense industries in place of the present priorities system may be put into effect before long. SPAB has ordered OPM to make a survey of the production programs for 1942 of all firms in the myriads of industries making up what we know as "American Industry." This survey is designed to bring out the facts concerning raw materials requirements upon which such an "allocation" plan may be founded. It is well known that the priorities system has resulted in cutting off many non-defense industries almost entirely from their sources of supply, and in some cases this has resulted in close-downs of plants, and unemployment. The allocations plan would ration materials specifically to individual consumers and would, theoretically at least, ameliorate many of the difficulties of the present situation.

The confectionery industry has so far been spared real difficulties arising out of the priorities system. True, it has been most difficult, if not impossible, to get either a priority number for materials (metal items especially) and the materials themselves. In individual cases it has probably meant doing with a used machine in place of the new one which was desired. But in the main, the industry as a whole has not really begun to feel the pinch of priorities. It is perhaps fortunate that we have a good used-machinery market in this industry and that much candy machinery is made a great deal like the old street cars—plenty of mileage before obsolescence.

What the future may hold under the allocation plan is as yet very difficult to estimate. Certainly, even under the allocation plan the so-called "non-essential industries" are going to fare little better than under the priorities system. That was clearly indicated in the dispatches announcing the survey of 1942 production plans. But there is hope for the confectionery industry in the knowledge that the basic reason for change to a new system was found in the inequities following out the priorities system which resulted in shut-downs and unemployment. Under priorities, manufacturers of defense items have piled up huge stocks, while non-defense industries have been cut off with little or no supplies. This was perfectly agreeable at first, since that was the most effective way to build up on necessary defense materials. But now that industry has adjusted itself to the double demand, a re-adjusment in favor of domestic demand must be made. The industry must not relax its vigilance in impressing the essential character of the confectionery business upon those who are going to regulate American industry to perform its double duty effectively and equitably.





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THE INDUSTRY'S CANDY CLINIC

HELD MONTHLY BY THE MANUFACTURING CONFECTIONER

The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Some samples represent a bona-fide purchase in the retail market. Other samples have been submitted by manufacturers desiring this impartial criticism of their candies, thus availing themselves of this valuable service to our subscribers. Any one of these samples may be yours. This series of frank criticisms on well-known branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of THE MANUFACTURING CONFECTIONER.

BAR GOODS

CODE 11A41

Fruit and Marshmallow Bar—2 ozs.—5c

(Purchased in Chicago, Ill.)

Appearance of Bar: Good.
Size: Good.
Wrapper: Glassine, printed in deep brown, blue and orange.
Coating:
Dark: Good.
Center:
Top and bottom: Fig coconut jelly.
Center: Marshmallow.
Color: Good.
Texture: Good.
Taste: Good.
Remarks: A different and good eating bar. This bar should be a good seller.

CODE 11B41

Cherry and Cream Bar—1½ ozs.—5c

(Sent in for Analysis No. 4398)

Appearance of Bar: Good.
Size: Good.
Wrapper: Foil, printed in red and green.
Piece is made up of 4 cherries pushed together while the coating was soft.
Coating::
Dark: Good.
Center:
Cherry and cream: Good.
Remarks: Two samples received were broken and syrup was all over the foil. If this bar is going to be put on the market it will not "ride" as it is wrapped now. Use a white board and turn up on the sides, at least three quarters of an inch. Unless some kind of board is used this bar will cause all kinds of trouble.

CODE 11C41

Caramel Nougat Peanut Bar—2 ozs.—5c

(Sent in for Analysis No. 4400)

Appearance of Bar: Good.
Size: Good.
Wrapper: Cellulose printed in blue and red.
Bar:
Center: Good.
Carmel: Good.
Peanuts: Good.
Taste: Good.
Remarks: Using salted peanuts has greatly improved the flavor and eating qualities of this type of bar. A very good eating bar and should be a good seller. Far superior to other bars of this type.

CODE 11D41

Nougat and Caramel Peanut Bar—2¼ ozs.—5c

(Sent in for Analysis No. 4399)

Appearance of Bar: Good.
Size: Good.
Wrapper: Inside wax, outside printed glassine orange and blue.
Coating:
Light: See Remarks.
Center:
Light chocolate nougat: Good.
Carmel and Peanuts: Good.
Texture: Good.
Taste: See Remarks.
Remarks: Coating had a cheap taste; suggest a better grade of coating be used. Coating was too thin as part of the caramel had leaked out. The idea of the shape and name is very good. Coating is not up to standard.

CODE 11E41

Milk Chocolate Mallows—1½ ozs.—No price stated

(Sent in for Analysis No. 4403)

One year old sample 1940.

Four pieces coated mallows in a chocolate colored cardboard boat. Plain cellulose wrapper, gold seal printed in black.
Coating:
Milk chocolate.
Color: Good
Gloss: Fair.
Strings: Fair.
Taste: Good.
Center:
Light marshmallow.
Color: Good.
Texture: Good.
Taste: Good.

1941 Sample

Coating:
Milk chocolate.
Color: Good.
Gloss: Fair.
Strings: Fair.
Taste: Good.
Remarks: Both samples are good eating and have a good taste. The 1940 coating is lighter than the 1941 coating. The only comment we can make is that the 1941 coating is a trifle "harder" or has less butterfat than the 1940 coating. Also, we think the 1940 had a better milk taste then the 1941 sample. Both are good eating pieces, but we prefer the 1940 sample.

Imitation Maple *ESSENCE A*

We have succeeded in blending an imitation maple which so closely duplicates the genuine that it challenges one's ability to detect a difference. This flavor positively identifies itself as **maple.** It has none of those confused taste sensations common to maple imitations of the past.

Our laboratory has worked painstakingly for years to perfect a **new** imitation flavoring with these qualifications. It is economical—four ounces being sufficient to flavor 100 pounds of fondant. Also, it is heat resistant—thus making it very stable and suitable for hard candies. This price is $15.00 a gallon.

You will agree, once you have tried it, that our **new** IMITATION MAPLE ESSENCE A will vitalize your maple candies. Now you can confidently include maple in your assortments and satisfy a popular flavor yearning.

George Lueders & Co.

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Essential Oils + Aromatic Chemicals **Established 1885** *Perfume Materials + Colors*

CANDY CLINIC SCHEDULE FOR 1941

The monthly schedule of the Candy Clinic is listed below. When submitting items, send duplicate samples by the 1st of month preceding the month scheduled.

JANUARY—Holiday Packages; Hard Candies

FEBRUARY—Salted Nuts; Chewy Candies; Caramels

MARCH—Assorted One-Pound Boxes of Chocolates

MAY—Easter Candies and Packages; Molded Goods

JULY—Gums and Jellies; Marshmallows

AUGUST—Summer Candies and Packages; Fudge

SEPTEMBER—Bar Goods of all types

OCTOBER—Home Mades: 5c-10c-15-25c Packages Different Kinds of Candies

NOVEMBER—Cordial Cherries; Panned Goods; 1c Pieces

DECEMBER—Best Packages and Items of Each Type Considered During Year; Special Packages; New Packages

CODE 11F41

Chocolate Coated Molasses and Peanut Butter Bar—2 ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper yellow and red, printed in dark brown.
Size: Good.
Coating: Light.
Color: Good.
Gloss: Good.
Taste: Good.
Centers
Color: Good.
Texture: Good.
Taste: See remarks.
Remarks: Bar is well made but center lacked peanut butter; also lacked flavor. Suggest more peanut butter be used to give bar a good taste.

CODE 11G41

Assorted Chocolate Bar—2 ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Cellulose wrapper, printed in red and white.
Size: Good. 7 single piece are dipped and put together before coating sets.
Coating: Dark.
Color: Good.
Gloss: None.
Taste: Fair.
Brazils: Rancid.
Cream Centers: Good.
Chocolate Caramel: Fair.
Fig Jelly: Fair.
Remarks: Centers were not up to standard.

CODE 11H41

Light Coated Marshmallow Bar and Caramel—2½ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in red, white and blue and stars.
Size: Good.
Coating: Light: Very cheap tasting.
Center:
Color: Good.
Texture: Good.
Taste: Fair.
Remarks: Suggest a better bar be made of good quality. Idea of wrapper is good.

CODE 11I41

Chocolate Coated Chocolate Fudge Bar—2½ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper printed in blue.
Size: Good.
Coating: Dark
Color: Good.
Texture: Good.
Taste: Good.
Center:
Color: Too light.
Texture: Trifle tough.
Taste: Fair.
Remarks: Center is not up to standard, suggest more chocolate be added and center be made tender.

CODE 11J41

Assorted Large Gum Drops—(no price stated)

(Sent in for Analysis No. 4402)

Year old gum drops have a better crystal then the fresh ones.
Appearance of year old gum drops was brighter and none were "flaked" or broken. Fresh Gums were broken.
Colors of Both: Good.
Texture: Year old Gums: Short & Pasty.
Fresh Gums: Good.
Flavors:
Year old Gums: Weak.
Fresh Gums: Good.
Remarks: The crystalizing on the year old gums was exceptionally good. We seldom see gums "stand up" as well for that length of time. Most guns flake and start to "peel" after six to eight months.

CODE 11K41

Nabisco Cracker and Peanut Bar 2 ozs.—5c

(Purchased at a candy stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in silver, blue and dark brown.
Size: Good.
Coating: Light.
Color: Good.
Gloss: Good.
Taste: Good.
Center: Texture: Good.
Taste: Good.
Remarks: Bar is different and if the cracker could be kept brittle it would be a fine eating bar.

CODE 11L41

Toasted Coconut Peanut Butter Bar—2½ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Plain cellulose wrapper, printed seal on top.
Size: Good.
Coconut: Good.
Center:
Texture: Good.
Taste: Good.
Remarks: The best molasses peanut butter bar that the Clinic has examined in a long time. Most bars of this kind lack a good peanut butter.

CODE 11M41

Caramel Nougat Whirl—2¼ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Cellulose wrapper, printed in blue and white.
Size: Good.
Caramel: Color: Good.
Texture: Good.
Taste: Good.

Nougat: Color: Good.
Texture: Good.
Taste: Fair.
Remarks: Nougat lacked flavor, suggest more flavor be used in the nougat.

CODE 11N41

Chocolate Vitamin Bar—1¼ ozs.—10c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Inside foil wrapper, outside amber cellulose printed in blue.
Size: Small for 10c seller.
Chocolate: Color: Good.
Texture: Good.
Taste: Good.
Remarks: A very good piece of eating chocolate. Most of the Vitamin bars we have examined have had an "Odd" and sometimes rank taste. This does not have either. Should be a good seller if made thinner and longer.

CODE 11O41

Chocolate Coated Pecan & Nougat Bar—1¼ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Cellulose wrapper, printed in white.
Size: Good.
Coating: Dark.
Color: Good.
Gloss: Good.
Taste: Fair.
Center:
Color: Good.
Texture: Good.
Taste: Fair.
Remarks: Coating is not up to standard. Center lacked flavor. Suggest pecans be salted, this would improve the taste of the bar.

CODE 11P41

Frosted Cocoanut Coated Chocolate Nougat Bar —2¼ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Cellulose wrapper, printed in blue.
Size: Good.
Coconut: Good.
Center:
Color: Good.
Texture: Good.
Taste: Good.
Remarkss A good eating nougat bar. Coconut had partly come off the bar.

CODE 11Q41

"Ice" Coated Fudge & Peanut Bar—2 ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Printed cellulose wrapper, blue, red and white.
Size: Good.
Coating: White sugar.
Center: Chocolate fudge:
Color: Good.
Texture: A trifle hard.
Peanuts: Good.
Taste: Good.
Remarks: One of the best Summer bars of its kind. Most of these coatings have a strong grease taste but this one had a good sweet taste.

CODE 11R41

Coated Molasses Peanut Butter Bar—2½ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in orange and blue.
Size: Good.
Coating:
Color: Good.
Gloss: Good.
Taste: Good.
Center:
Color: Good.
Texture: Good.
Taste: Good.
Remarks: The best eating bar of its kind that the Clinic has examined this year. The Malted Milk gives the bar an outstanding and different flavour.

CODE 11S41

Vanilla Caramel Pecan Bar—1½ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in yellow and blue.
Size: Good.
Color: Good.
Texture: Good.
Taste: Very Good.
Remarks: A very fine eating bar, well made and of very good quality. Every bar that this manufacturer puts on the market is of the best quality and is well made.

CODE 11T41

Milk Chocolate Coated Peanut & Nougat Bar—1¾ ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in blue.
Size: Good.
Coating:
Color: Good.
Gloss: Good.
Taste: Very good.
Center:
Texture: Good.
Taste: Good.
Color: Good.
Remarks: A well made bar and good eating. Suggest a few more peanuts be added to the nougats.

CODE 11U41

Pecan Frappe—1 oz.—5c

(Purchased in a cigar store, Boston, Mass.)

Appearance of Bar: Good.
Size: Small.
Wrapper: Inside wrapper of wax paper, outside red cellulose printed in white.
Color: Good.
Texture: Good.
Taste: Good.
Remarks: We found 3 piece of pecans. Bar is good eating but should contain a few more pieces of pecans, as the bar is very small for a 5c seller.

CODE 11W41

Peanut Caramel and Nougat Bar 3¼—ozs.—5c

(Purchased at a cigar stand, Chicago, Ill.)

Appearance of Bar: Good. Glassine wrapper, printed in blue and red.
Sizes Good.
Peanuts & Caramels: Good.
Center:
Color: Good.
Texture: Good.
Taste: Good.
Remarks: One of the best bars of its type on the market. Suggest peanuts have a trifle more salt on them.

CODE 11X41

Chews, Caramels and Nougats—1 lb.—No price given

(Purchased in a candy store, San Francisco, Calif.)

Appearance of Package: Good.
Box: One layer type, beige color, printed in dark brown and red, tied with jute twine, red wax seal, amber color cellulose wrapper, 2 seals.
Appearance of Box on Opening: Good.
Contents:
Vanilla Nut Caramels:
Colors Good.
Texture: Good.
Taste: Good.
Vanilla Caramels:
Color: Too light.
Texture: Good.
Taste: Fair.
Chocolate Nut Caramels:
Color: Good.
Texture: Grained.
Taste: Fair.
Pecan Fudge Slices:
Color: Good.
Textures Good.
Taste: Good.
All above pieces were cellulose wrapped.
Bonbons: Good.
Peppermint Wafers: Good.
Remarks: Plain vanilla caramels and chocolate nut caramels need checking up. Both had an off taste. Chocolate nut caramel was grained and did not eat well. Printing on top of box said chews, caramels, and nougats, box did not contain any nougats.

SUPPLY FIELD NEWS

DuPont Man Receives Chemistry Industrial Medal

The Chemical Industry Medal for 1941 was presented recently to Dr. Elmer K. Bolton, chemical director of E. I. du Pont de Nemours & Co., at a joint meeting of the American Society of the Society of Chemical Industry, the New York section of the American Chemical Society and the New York section of the American Institute of Chemical Engineers. Dr. Bolton was intimately associated with the research leading to the development of neoprene and nylon, and was in fact instrumental in initating the research in the du Pont Company on synthetic rubber.

Jones, Rockwood Vice President, Passes Away

P. K. Jones, vice president and a director of Rockwood & Co., Brooklyn, N. Y., died October 31. He was a brother of Wallace Jones, president of the company, and had been associated with the company since 1915. He began his work as a chemist for Rockwood and directed the company's production and research activities. His father, the late Wallace Thaxter Jones, was president of Rockwood when Mr. Jones became associated with the company.

Standard Synthetics Opens San Francisco Warehouse

Standard Synthetics, Inc., of New York, N. Y., recently announced the opening of an office and warehouse in San Francisco, Cal., under the direction of F. D. Lyon. The address is 433 S. Van Ness Avenue. At the end of October, J. L. Hinds, vice president of the company, visited the new West Coast office and spent several days calling upon the trade in San Francisco and Oakland, accompanied by Mr. Lyon.

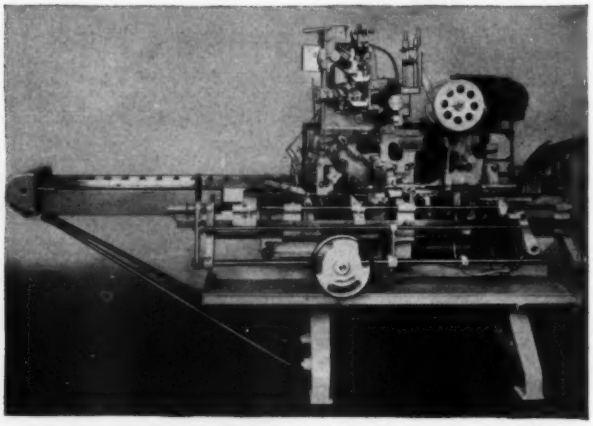
Further Expansion At Merck Plant

Opening of a new building housing the analytical laboratories of Merck & Company, Rahway, N. J., was announced by the company recently as another step in its expansion program to meet the increasing demand for its line of chemicals, including vitamins, for medicinal and nutritional use. According to the officials of the company, the new building houses the most modern scientific equipment and facilities for controlling the quality, purity and uniformity of more than 1,500 products used by the professions and industry. The analytical laboratories are under the direction of Dr. E. R. Foran.

Monsanto Earns 81c A Share in Third Quarter

Net income of the American companies of the Monsanto Chemical Co., for the third quarter of 1941 was $1,673,921, which is equivalent to $1.19 a common share, Edward M. Queeney, president, reported to stockholders late in October. After adjustment for taxes assessed by the Second Revenue Act of 1940, earnings for the third quarter of 1940 were equal to 81c a common share, the report stated.

AMERICA'S BUSIEST BAR WRAPPER



CA-2 wraps 80% of the molded bars produced in this country

The Model CA-2 is the real kingpin when it comes to bar wrappers. This machine has every feature for neat, attractive bar wrapping at lowest cost. That's why it is used to wrap the vast majority of bars produced in this country.

The CA-2 wraps all sorts of molded bars—and is adjustable for a wide range of sizes and shapes. Handles bars with square or beveled edges, bars with rounded ends, small, thin bars as well as those with peanuts or almonds. *USES ANY OF THE CURRENTLY POPULAR WRAPPING MATERIALS.* With foil now almost unobtainable, ready adaptability of a wrapping machine to other types of materials is more important than ever. Printed material may be fed from roll and registered accurately by Electric Eye—this saves as much as 20% over the cost of cut-to-size sheets.

The CA-2 may be provided with an *easy-opening device*, and may also be equipped to insert one or more cards or leaflets into the wrapping.

Get all the facts up to date on this popular money-saver—the CA-2.

Write for Literature

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Paper Conservation

Clinic Discusses Possible Economies

by O. F. LIST

Staff, THE MANUFACTURING CONFECTIONER

At a meeting held in the editorial offices of THE MANUFACTURING CONFECTIONER on October 24, members of this publication's Packaging Clinic Board met with candy plant executives and supply trade representatives for the purpose of discussing the possible eventualities of the paper curtailment program recently inaugurated by the Office of Production Management. As is well known to the industry, a voluntary reduction of 25% in the overall volume of paper, boxboard and other materials used for candy packaging and shipping has been requested by the government. It was the purpose of the Clinic's "open house" meeting to generalize upon possible paper conservation methods and to evaluate, if possible, the steps already taken by both the supply trade and their customers to cut down on the requirments of packaging materials for candy.

Two typical samples of candy shipping cases were discussed by the gathering, with a rather general consensus that not much further can be done in the physical size or shape or cut of shipping cases now commonly used, to effect a reduction in the board required. However, it was agreed that much can be done by the entire industry, from manufacturer through jobber to retailer, to obtain greater service, through re-use, of candy shipping boxes and cartons. In some cases, it was reported, manufacturers have actually worked out with their distributors and retail accounts a return system on shipping cases. While the careful opening and handling of shipping cases for return involves additional work, it was agreed that such a system could be worked out effectively if it were backed by a program of reward and/or penalty mutually agreed upon by shipper and consignee. The idea of a central agency to handle exchange of used cartons and shipping cases was not deemed practical due to the difficulties involved in financing the cost of operating such an exchange. In the case of damaged cartons and shipping boxes, it was felt that the sale of such materials directly to used-paper dealers would be the simplest and most direct means for getting the board back to paper manufacturers for re-pulping and remanufacture into boxboard and kraft paper.

From reports received at this meeting, no candy manufacturer has come forward so far with a really effective plan for reductions in materials used for set-up boxes. It was stated at the meeting that the extension-edge box probably offers the best single spot for reduction in materials, and in this connection it was stated that elimination of the extension-edge might result in a reduction of material up to 35% of the total now used for this type box. Objections in regard to the appearance of the straight-edge (telescope) boxes could be overcome through box designs planned to make such boxes look longer and wider. It was the general opinion that objections at present to elimination of the extension-edge box

Christmas carton being used by D. L. Clark Co., Pittsburgh, Pa., for its various bars. Each carton holds 10 bars.

Throughout the country there have been a number of meetings of confectionery manufacturers, called to give consideration to paper curtailment. Many of our subscribers have been unable to attend in person or by representatives. It is for these manufacturers that THE MANUFACTURING CONFECTIONER held its own curtailment conference in the thought that every reader would be directly concerned in the curtailment program and its meaning to candy manufacturers of every kind and type.

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were based largely on competitive considerations and that if the elimination were made universal, there would be no real objection to abandonment of the extension-edge box. However, since the extension-edge box forms only a small part of the total of set-up boxes used by the candy industry, the total effect of such reduction would not have any dramatic effect on the curtailment program as a whole.

Considerable discussion developed in connection with "findings" in candy box packs. One candy company representative reported his company has cut down on their requirements of cups by using a cup only on alternate pieces in the bottom layer. He demonstrated a number of ways in which this could be done without too great a sacrifice in the appearance of the pack, and from the results shown, this idea will bear careful consideration by others whose supply must be conserved not only for this year's pack but also for the 1942 selling seasons. In this connection it was also brought out that the use of other than plain criss-cross dividers in the lower layer of a package assortment has been ruled out. In other words, no more fancy double criss-cross, curved, or decorative dividers are permitted at present, the utilitarian value of the divider as a support for upper layers being emphasized through this ruling.

The general opinion of the group indicated that it is possible to plan very attractive packs for package assortments and still use the very minimum of protective and decorative material. Individually wrapped pieces used as "spots" in upper layers, especially where the wraps of such pieces involve the use of foil, will probably be replaced in chocolate assortments by light-colored panned pieces or pastel shades of bonbons. For the sake of conservation, too, the practice of wrapping nut-rolled pieces to prevent scattering of nuts fragments all over the pack, may have to be abandoned temporarily as the demand for transparent cellulose shrinks available stocks.

Walter Baker & Company's new display case for assorted chocolate bars on retail counters. Hinde and Dauch developed this double-duty unit.

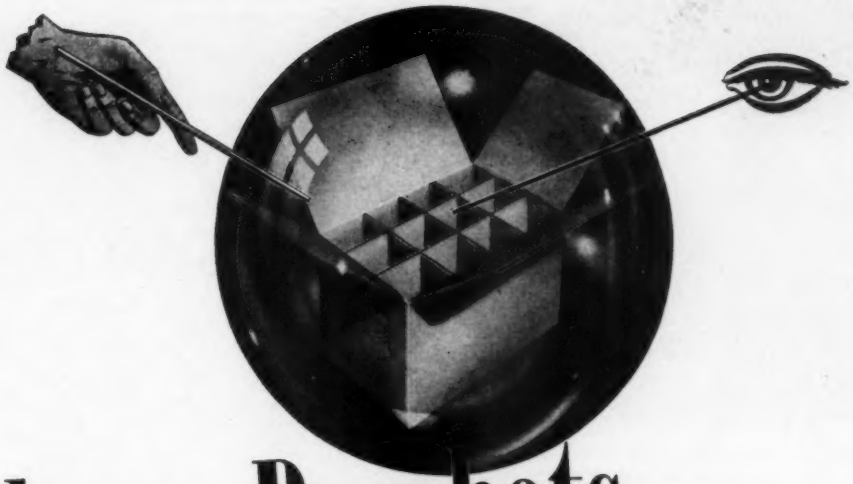
In reply to a question relative to packaging round metal containers in sleeves, for protection in shipping, it was agreed that considerable saving in the board commonly used for this purpose could be achieved by the complete abandonment of sleeve containers and using waste paper, newspapers, etc., around and between the metal boxes for protection in transit. While this would increase the problem of proper wrapping in the retail store, it was felt this did not represent too serious a problem by comparison with the contribution to paper conservation such elimination would effect. Under present conditions, retail customers for candy will have to be "merchandised" away from expecting the elaborata packages and wraps to which they have become accustomed in peaceful years and be content with something that will be almost entirely utilitarian in character.

Return of the wooden pail and wooden boxes for shipping certain types of bulk candies was seen as a definite possibility, pending the duration of the present emergency. It was stated at this meeting, and subsequently re-stated in other meetings reported in the press at which packaging and the paper shortage have been discussed, that there is no shortage of wood of the type used for making pails and boxes, but there is a shortage of nails, wire, and metal strapping required for building wooden containers and making them secure in transit. Naturally, the return to this type shipping container will present new problems arising out of the increased weight and handling, but the point made at the meeting was that if and when such a return to old ideas comes, it will be the result of a real necessity and not an arbitrary choice.

In connection with bars, discussion brought out the fact that almost every 5c bar on the market today is amenable to machine-wrapping. Since machine-wrapping at least theoretically effects a reduction up to 20% of bars wraps and liners, it was submitted that all bars might soon be machine-wrapped by the larger manufacturers whose volume warrants the acquisition of machines for wrapping bars—providing that priority rulings covering metals would permit building of the required number of machines for this purpose.

Various transparent materials, both rigid and slack, used today for candy wrapping and packaging have already felt the pinch of curtailment, it was reported. While it is unlikely that candy and other foods would ever be entirely ruled out so far as transparent cellulose is concerned, certain uses of this material for decoration and non-essential to the keeping of candy in a fresh state and free from contamination should be abandoned by candy manufacturers. Over-wrapping of box assortments was one of the practices which, it was reported, would be ruled out if the transparent cellulose situation becomes really acute. Great amounts of transparent cellulose are also excessively used in the candy industry, it was stated, through the wide over-lapping of box-overwrap seams. Machine over-wrapping would greatly reduce this waste, was the opinion.

Use of embossed padding on box assortments will likely be reduced to a minimum, it was stated, since



Package Prophets

for American business

HINDE & DAUCH Package Engineers . . . "prophets" in their field . . . are mobilized *now* to train their foresight on your *present* and *future* packaging problems. Trained to *anticipate* the packaging requirements of future markets, these skilled corrugated package technicians have the experience and talent to work ahead intelligently.

Although H & D's 25 mills and factories are on an "all out" schedule, producing shipping boxes for hundreds of items from munitions to motors, H & D Package Engineers can *redesign* your present package *now* . . . make it stronger, more simple, more economical to produce. Likewise, they are prepared to perfect the package you will need *tomorrow*, so that your *entire* merchandising program is ready to march when business returns to business.

What does this service cost you? Nothing. H & D is investing its "prophets" in American business. A few minutes with an H & D Package Engineer *today* may save you months *tomorrow*. Your inquiry will be given immediate attention.

H & D Package Engineers are practical packaging experts. They can redesign your present package to place still further emphasis upon economical utility.

A few minutes with an H & D Package Engineer today will give you a head start in the competitive merchandising race of *tomorrow*.

HINDE & DAUCH *Authority on Packaging*

SAVE WASTE PAPER

4159 DECATUR STREET, SANDUSKY, OHIO

FACTORIES in Baltimore • Boston • Buffalo • Chicago • Cleveland • Detroit • Gloucester, N. J. • Hoboken Kansas City, Kans. • Lenoir, N. C. • Montreal • Muncie, Ind. • Richmond, Va. • St. Louis • Sandusky, O. • Toronto.

O'Briens of San Jose, Cal., have recently entered the national candy market with this fine line of tin-packed chewy and nut candy.

the production of such paper involves expensive processes and large use of chemicals required in defense work for other purposes. Lace flies, similarly, are likely to feel the axe of curtailment, although it was agreed that the use of flies in box assortments has dwindled considerably in past years. Use of wax paper would probably not suffer, since the wax layer liners in box assortments serve a definitely utilitarian purpose of preventing the fat in chocolates to ooze through the box itself.

In the case of rigid acetate transparent packaging materials, the candy industry may be seriously affected during the present emergency because the chemicals required for the production of this material are so essential to direct use in war and defense requirements. Some manufacturers of these materials have already gone on a "no promises" basis, or, are turning down new business entirely. However, there are other plastic materials which could be utilized for candy packaging, and which do not have a direct bearing on national defense. It may behoove candy manufacturers to inquire into the possible application of such materials to replace critical packaging materials now in vogue.

In general, the opinion of the entire conference was that the candy industry must be prepared to go back to packaging practices which, under normal circumstances today would be regarded as "old-fashioned" and "backward." Yet these are not normal times; consequently, the public cannot expect the same degree of fanciful and decorative effects we have taught them to look for during the past two decades of peace and progress. At best, if the candy industry can succeed in getting to the customer a product that is pure and wholesome, that customer will, through the merchandising efforts of the industry generally, come to be quite satisfied if the candy he buys is not so elaborately packaged as it was in peacetime. Conceding the possibility that the paper and paper board shortage is another means of selling the war to the people of the United States, it nevertheless is a fact that a shortage, real or artificial, does exist at present, and the manufacturer must of necessity do everything he can to contribute his share to the 25% reduction in requirements asked of the entire industry. In the conference meeting, it was generally felt that a real merchandising job confronts the candy manufacturer in making this transition from elaborate packaging to practical packaging as easy as possible for his jobbers and retailers. The transition will also test the ingenuity of the industry in developing a more simplified form of packing and packaging.

Packaging Institute Elects New Officers, Directors

Following are the new officers and directors of the Packaging Institute, Inc., elected at the organization's recent annual meeting in Rye, New York: President, George R. Webber, Standard Brands; vice presidents: A. V. Shannon, Westfield River Paper Co., W. D. Kimball, Standard-Knapp Corp.; directors: Production division: William M. Bristol, Bristol-Myers Co., and Joel Y. Lund, Lambert Pharmacal Co.; Machinery division: W. D. Kimball and K. D. Doble, Pneumatic Scale Corp., Ltd; Supplies division: H. A. Barnby, Owens-Illinois, and Hal W. Johnston, Stecher-Traung Litho. Corp. Stanley L. King, Monsanto Chemical Co. was elected chairman of the Supplies division. The Packaging Machinery Manufacturers Institute elected Chas. L. Barr, F. B. Redington Co. as president, and as vice presidents, W. D. Kimball and George A. Mohlman, Package Machinery Co.

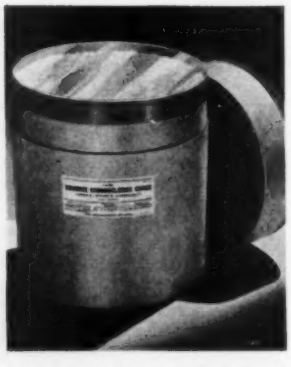
As a guide to manufacturers in all fields who seek to save time, money and materials in shipping, Hinde and Dauch Paper Co., Sandusky, Ohio, recently published a handy booklet, titled "How to Seal Corrugated Shipping Boxes," in which authoritative information on sealing methods has been condensed. Copies are free for the asking.

A new catalog entitled "TAG Recording Instruments for Temperature and Pressure" has just been published by C. J. Tagliabue Mfg. Co., Brooklyn, N. Y. It pictures and describes the latest developments in this manufacturer's line of recording instruments.

Packaging Institute Head Dies Suddenly

George R. Webber, manager of the package development department of Standard Brands, whose election as head of the Packaging Institute is reported in another news item in this issue, died in New York Hospital, November 2, after a short illness. He was buried in Augusta, Maine, of which city he was a native. He was 51 years old.

Merck Develops New Vitamin B_1 Container



A new development in functional package design is the 1-kilo drum which has been designed by Merck and Co., Raway, N. J., for packaging Vitamin B_1, Thiamine Hydrochloric Merck. Having no separate inner packing, this new fiber drum features a complete lining of Pliofilm affixed to the drum wall, and a transparent inner cover of cellulose acetate. Both these departures in chemical packaging are said to insure absolute cleanliness and purity. A further advantage of the new drum is its complete accessibility, since it permits the extraction of the very last 1/10 gram from the container.

Today is a good time to consider taking an old product in a new package to new fields. Markets are shifting, public buying power is changing—in your favor, if you meet the requirements.

Burry's new Rookie Cookie package is an excellent example of wide-awake merchandising. It is cleverly but simply constructed, timely in its appeal, and of course the contents are carefully protected with Riegel Papers (specially corrugated by Sherman Paper Products of Boston).

There are many new packaging problems today, and Riegel's 230 different papers are often helping to solve them quickly, efficiently and economically. Perhaps we can help you, too.

RIEGEL PAPERS

RIEGEL PAPER CORPORATION, 342 MADISON AVE., NEW YORK

Packages viewed by the Packaging Clinic this month included a round tin assortment, conventional set-up boxes, a host of transparent acetate containers, and several store-display folding boxes with "windows."

Candy Packaging Clinic . . .

CONDUCTED BY CANDY PACKAGING BOARD OF THE MANUFACTURING CONFECTIONER

Clinic Meetings of the Packaging Board are held Quarterly at M. C. Chicago Offices on 15th of the following months: January, April, July, October

Round Assortment
1 lb—65c

CODE 11141—Description: Circular and tin lithographed in all-over dark red, with lettering in white.

Design: The familiar trade-mark name of the manufacturer is in script lettering at the right and on a slant. At the center, toward the lower edge of the cover, a block of type, in white, giving the list of ingredients and underneath this in slightly larger type, the manufacturer's name and address.

Appearance on Opening: A two-layer assortment of chocolates and bon bons with a variety of centers. Light and dark chocolate is used and this, together with the light pastel-shade bonbons, give the upper layer a tasty appearance. Stringing is excellent and gloss is good. A nut-topped piece in the center adds just the right touch for appearance.

Findings: A circular embossed pad over the upper layer. Above this is a box insert containing the manufacturer's guarantee. White cups are used for the pieces in both layers. Above the lower layer is a tissue pad underneath a cardboard layerboard. A wax paper disc separates the candy in the lower layer from the padding.

Sales Appeal: The very simplicity of the design of this tin, together with the striking contrast of red and white on the tin top, give this assortment a strong sales appeal which coupled with the price should make it an excellent seller.

Display Value: Excellent. The rich red of the all-over color against which the spare white lettering stands out starkly will attract where a more elaborate design would diminish the appeal of this package. It would seem that this same package could be used to greater advantage for higher-priced candy, although the customer's reaction to this tin for 65c will definitely be very favorable.

Comment: One of the neatest packages the Clinic has viewed this year. It has good color, it has compelling design, and above all, it contains top-quality candy. Here is a striking example of simplicity in box design carrying far more sales "punch" than a more elaborate design.

Curtailment: This package is normally packed in a folding sleeve for protection in shipping and ease of wrapping at the retail outlet. It was submitted at this time for suggestions of what could be done to replace the sleeve if that were to be eliminated in the interest of paper conservation. It was the Clinic's suggestion that waste paper could easily be used to protect the round tins in the shipping cases, and that on the retail end, if the customer insisted upon a wrap of some sort, a white sack or some other simple wrap be used. If the tin were bought for mail delivery, the manufacturer could supply a limited number of such mailing cartons for use by the retail store.

Recipe for Nestlé's Semi-Sweet Chocolate

. . . INCLUDES "CELLOPHANE" PROTECTION!

FLAVOR PROTECTION is what Nestle sought when packaging this new Semi-Sweet Chocolate for the food store market. They found the full, delicious flavor was best protected by "Cellophane" cellulose film.

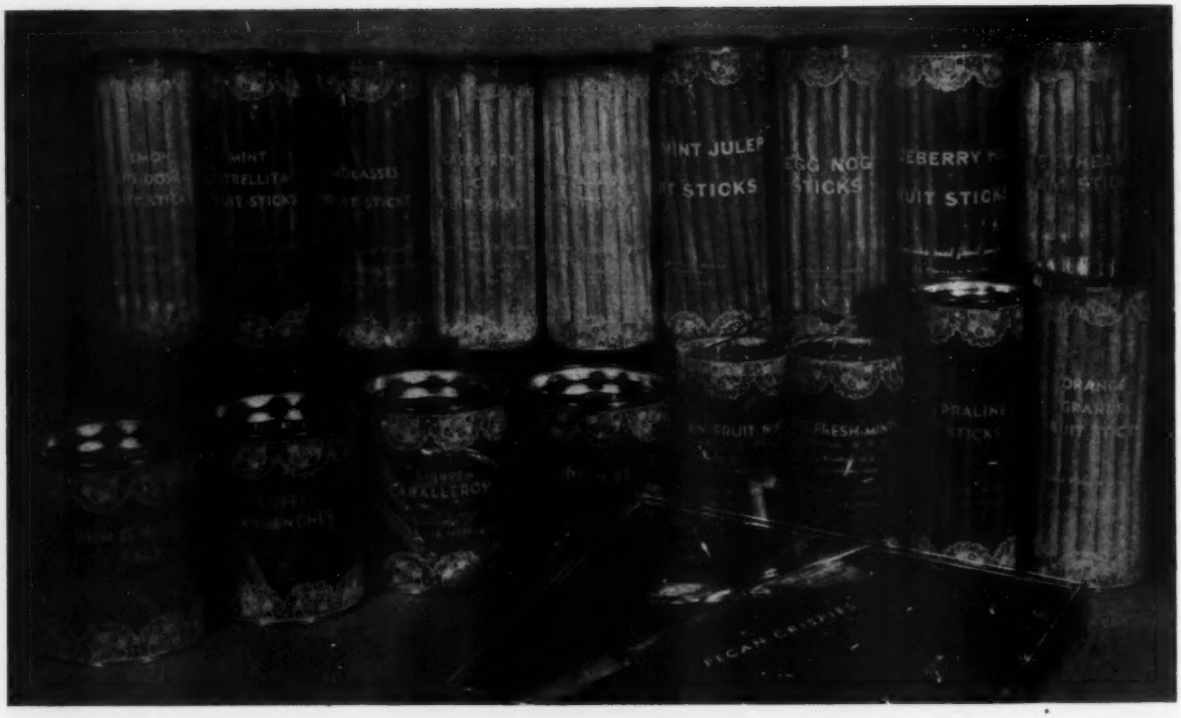
Housewives have confidence in the protective values of "Cellophane" too. They prefer to buy ready-to-use products like these Nestlé's Semi-Sweet Chocolate morsels neatly and protectively packaged to eliminate waste.

In a recent survey 94% of the women interviewed said, "We prefer food products protected by 'Cellophane'."

DU PONT

E. I. DU PONT DE NEMOURS & CO. (INC.)
"Cellophane" Division, Wilmington, Delaware

"Cellophane" is a trade-mark of E. I. du Pont de Nemours & Co. (Inc.)



Stick Candy

12 oz.—No Price Given

CODE 11241—Description: Pastel colored fruit flavored stick candy in a transparent acetate container printed in white. Transparent top secured with scotch tape.

Design: Design of this transparent container consisted of a lace edge at top and bottom of the container's side walls. The name of the candy is printed in block letters at the center between top and bottom. Underneath this, the list of ingredients and the manufacturer's name and address. On the opposite side from this main panel is a figure of a cowboy on a bucking horse.

Candy: Individual sticks of deliciously fruit-flavored candy, each stick separately wrapped. Color and eating quality were very good.

Sales Appeal: Stick candy packaged in this manner has complete protection and at the same time has every chance to exert utmost sales appeal on the customer; in fact, the transparent container seems to add lustre to the whole assortment.

Display Value: Excellent.

Comment: In connection with the design used on this little transparent container, it is felt that the two elements of lace and a cowboy on a bucking bronco hardly fit together properly. Appreciating, of course, that almost everything originating in the Southwest features a typical western scene somewhere on its package, it is felt that in this case some attempt should have been made to bring a direct tie-up between cowboy and lace, or else to eliminate the lace trim entirely and use, instead, perhaps a cloud effect at the upper edge and a fence or corral effect at the lower edge. The purpose of the edge trim, in any case here, is of course to screen the end wraps of the individual sticks in the box. On this particular box the use of white for imprinting the acetate was bad, for the light pastel color of the candy itself made a very poor background for the white imprint. It is suggested that dark blue or even red be used on the boxes containing light-colored sticks, and that white be used only on the boxes having darker sticks. As a whole, however, these transparent containers with transparent tops and bottoms make very attractive packaging for prosaic stick candy.

Rum and Butter Candy

12 oz.—No Price Given

CODE 11341—Description: Transparent acetate round box having a metal bottom and metal friction cover. Candy is in small nib-like pieces each individually wrapped in transparent cellulose.

Design: The design of this container also features the lace edge at top and bottom, as well as the bucking bronco figure on the secondary panel, all in white, as is also the informative copy on the main panel.

Candy: Candy is good eating and rum and butter flavor is nicely blended into the batch, making for a delicious chewy piece.

Sales Appeal: Good.

Display Value: Better in this case because the candy in the container is dark colored, therefore forming a better background for the white imprint on the acetate. As compared with the candy in Code 11241, this rum and butter candy does not exert any particular "pull" in itself, for it has the characteristic dull brown color of a chewy piece. So it remains for the design on the box to compel the customer's attention, and in this case the design should work in that manner.

Comment: The Clinic does not feel that the acetate containers having metal tops and bottoms convey quite the same touch of daintiness imparted by the all-transparent container. Yet, it is understood that there are very definite stock lines of such containers, some all-transparent and others fitted with metal tops and bottoms. The same criticism as to the design elements hold in this case as in the case of the box Code 11241. It it is to be Western, make it all-western; or, combine the feminine touch of the lace more closely with the male touch of the figure on the bucking horse.

Coffee Beans

12 oz.—80c

CODE 11441—Description: Transparent acetate round box having a metal bottom and a metal friction cover. Printed in white. Contains small foil-wrapped pieces of coffee-flavored candy.

Design: At the upper and lower edge of the side wall is a solid white line. There is a polka-dot design over the entire transparent portion of the side wall. The main panel consists of a square in which the manufacturer's name appears in its characteristic script trade mark design. Since this pack-

"Gim-Me Tha Sucker with the White Stick!"

Our Dealers tell us that's what the youngsters are saying. Wouldn't you like to have several extra millions of them say that about **your sucker?**

You may, soon, if you start right away with

SETTERSTIX

OF PURE PAPER

This revolutionary new stick is the showiest ever used on a "lollipop." Stands out like a lighthouse. And it **pulls the business,** too.

Made of snow-white paper, fresh from the mill, and just as clean as it looks. **Safe,** too; for it bends or breaks if the child falls on it — that's why nurses and doctors recommend it.

Absolutely uniform in thickness and length, and stiff enough to work in the standard machines. It's **the coming stick.**

Swing into line today — write for samples NOW.

SAFE
SANITARY
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SALABLE
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Work in Standard Machines

SETTER BROTHERS
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Cattaraugus, New York, U. S. A.

HEART SHAPES
ON
SWEETONE PAPER PRODUCTS
for
VALENTINES
EASTER and
MOTHER'S DAY

SWEETONE PAPER PRODUCTS are outstanding in every way because of the superior quality and workmanship put into them here in our great converting plant. Our products being made on high-speed machines, sell at the lowest possible prices based on the above facts.

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CANDY MATS (Plain and Embossed)
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PARTITIONS

LET US QUOTE ON YOUR REQUIREMENTS

(If we are not already supplying same)

Write for Samples and Prices

George H. Sweetnam, Inc.
282-286 Portland Street
Cambridge, Mass.

age is for sale through the manufacturer's own outlets, there is no listing of ingredients. Above the panel containing the manufacturers name, on the upper solid white band, is a narrow printed label, gold printed in black, on which the identification of the candy is given.

Candy: Deliciously flavored bean-like chewy candies. The flavor is well blended.

Sales Appeal: Good. The name is well-suited to the shape and flavor of the candy.

Display Value: Good. The foil wraps of the individual pieces in the container will exert their own influence quite apart from the display elements (or lack of them) in the container itself.

Comment: The polka-dot effect on the sidewall is entirely lost, as is the feature panel, because a white ink is used for the imprint. Against the silver background of the foil, the design is practically lost. A dark color for the imprint would have shown to better effect. At 80c for 12 ounces, this candy seems to be a little high-priced, yet this pricing would not have been apparent if the container had been fashioned entirely of the acetate, instead of the metal bottom and cover. The all-acetate containers seem to carry through to a greater degree a touch of delicacy, while the stark metal of the bottom and cover of the present container tends to make it look a bit gross.

Vanilla Beans

12 oz.—80c

CODE 11541 — Description: Rigid acetate container with metal bottom and friction cover, containing cellophane wrapped vanilla flavored chewy candy.

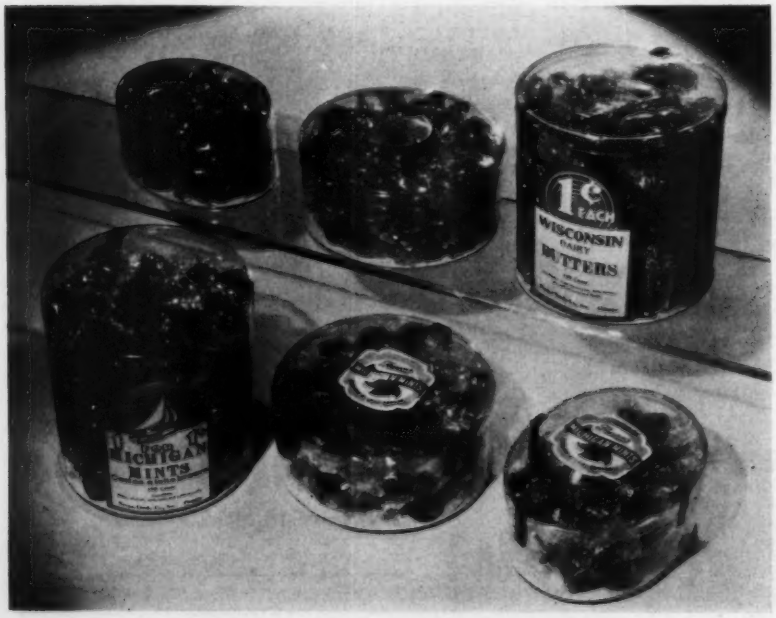
Design. The design on this container is the same as on Code 11441, except for the label in the upper white band, which identifies the candy. In this connection it is the opinion of the Clinic that the name "vanilla beans" is not as appropriate for this piece as was the name "coffee beans" for the previous package discussed. In the case of the former, the candies were in the shape of a coffee bean and were coffee flavored. In this case, at least, the shape of the candy is bean-like, certainly, but little like a true vanilla bean.

Candy: Well-made vanilla flavored chewy candy, each piece individually wrapped in cellophane.

Sales Appeal: Fair, though again it is felt that 12 ounces for 80c is a bit high for a chewy candy having even the quality of this piece.

Display Value: Good. In this case the dark color of the pieces forms a good background for the white imprint on the transparent sidewall. The polka dots show up well, as does the panel containing the manufacturer's name and trade mark.

Comment: The high price of this candy has already been mentioned. Like the other acetate containers discussed by the Clinic this time, this package represents a stock item offered by the supply source. Such stock items are very seldom flexible enough to allow the user to get variety is design. Outside of the fact that this container is transparent, it has little to recommend it to the candy man in its present form. These containers are meant to permit the candy to sell itself, the supposition being that therefore you will want a minimum of decorative material or design on the container itself. Yet, where the goods is light and the wrapper is light, you must get some color into the container design, else the all-over effect will be negative. Even use of of a colored wrapping material on the single pieces would have done something for this package, as well as for the one in Code 11441.



Chocolate Selections

1 lb.—No Price

CODE 11641—Descriptions Cellophane-wrapped extension edge box in various shades of lavender and gold, containing an assortment of rather large pieces coated with light and dark chocolate in two layers.

Design: On the box top main panel, there are three separate divisions. At each side are straight strips about 1½ in. wide running from top to bottom. In these strips are fleur de lis figures in lavender and white, outlined by intertwining figures of the same general idea, in gold. The color of these two panels shades off from deep lavender at the top to a light shade at the bottom. In the main center panel there is also a shading of color from dark around the edges to a white spot in the very center, where there is a reproduction of an orchid the very center of which contains a spot of golden yellow. The words "Chocolate Selections" are above and below the flower, in gold script. The manufacturer's characteristic trade mark is at the top, left, of this panel, and the name of the assortment opposite this at the very bottom of the center panel. The side walls of the box carry out the same general color scheme, with a deep lavender edge running irregularly around the bottom edge and outlined in gold.

Appearance on Opening: Hand-dipped chocolates having a variety of centers, on which the strings are fair and the gloss good. Candy is very fair eating. The light and dark coated pieces are packed to give good contrast to the upper layer, and two gold foiled pieces also break up the monotony of the chocolate color. Box appears to be somewhat slack filled as the pack moves around considerably when the box is tilted. A tighter pack is recommended.

Findings: A piece of embossed glassine (or paper?) is the only protection between candy and box top. On top of this single sheet is also a box insert containing a statement by the manufacturer about the quality and condition of the candy when packed. Brown glassine cups are used throughout. Two pieces in upper layer are gold foiled. A notched layer board separates the upper and lower layers. There is no protective sheet between this board and the candy in the lower layer. A simple corner-to-corner criss-cross divider in the bottom layer supports the weight of the upper layer.

Sales Appeal: The color and design on the box top should give this box good appeal to the passing customer, except that the use of lavender for a box of chocolates is somewhat doubtful.

Display Value: Fair. Certain people react very well to lavender and purple. Others are driven away by it. If you are going to use an orchid as your main attractive design element on the main

panel of the box, then of course you must use the lavender motif. Since this is a new assortment which has only been on the market a few weeks, it will be interesting to see what the public reaction to it will be. In the main, this is an attractive box.

Comment: Use of the gold over-print for certain elements in the box design is felt to be undesirable, since the gold is not strong enough to contrast well with the various shades of purple and lavender. Gold is often used to add richness of appearance to a box, but in this case, the all-over purple is already rich enough in itself to exert an attention-getting influence.

Chocolate Wafers

1 lb.—No Price

CODE 11741—Description: Die-cut folding counter set-up box containing two tiers of rum and butter flavored solid chocolate wafers. The carton is entirely foil covered and die-cut and folded in such a way that the two tiers of red-foiled pieces contrast with the general design idea of the entire package. Over the open tiers is wrapped transparent cellulose which is sealed at the back of the box. There is good contrast between the red foil used on this piece and the silver foiled and red lettered display box. On a similar container for mint flavored chocolate discs, a green foil is used for the individual pieces.

Design: The name of the manufacturer is in block red lettering on white background at the very top of the front wall of this box. Down through the center between the two tiers of candy, is a solid silver bar without lettering of any kind. At the bottom, again against a white background, the name of the candy in block red letters. At the sides there are figures of the familiar "chocolate girl" exploited by this manufacturer, red on white in a silver oval, and a straight block red strip running vertically down from here, against a silver background.

Comment: There is no question about the striking character of this display carton, and without question it will stimulate sales of these wafers in the grocery store market, for which this container is designed. However, it is the Clinic's opinion that the manufacturer is getting a good effect at too great an expense. There is no way of accurately estimating the cost of this folding box, but from a general knowledge of the expensive processes used to achieve this effect, it is felt that the cost of the box is out of proportion to the value of the candy it contains. While it is true that the box very likely was conceived long before the present paper shortage became noticeable, this container also includes elements which will make it impossible to produce under present conditions. The foil alone gives it a very temporary status under present conditions. And when all is said and done, it is conceivable that a plain folding box with a cellophane covered window would move this candy as well as the present elaborate box, and certainly, at far less expense. Withal, the Clinic commends the thinking which preceded the selection of this container. That the manufacturer has gone a little overboard in this particular case and that the Clinic has indicated this in its comment is no reason at all why the company should not try again. Our main criticism of this container is that it isn't quite as practical as a less elaborate and less expensive package of another kind might be. Try again. On another similar folding box used for smaller milk chocolate wafers, the front of the box is a window of lumarith protectoid, with a diagonal of paperboard running through the window to give it strength. In this container the smaller chocolate

pieces are wrapped in vari-colored foil, giving a bright attractive appearance. However, even in this case, it is felt that the container is too elaborate. The same effect could be achieved in a much simpler way.

Imperial Chocolates

1 lb.—60c

CODE 11841—Description: Cellophane wrapped extension edge telescope box, covered with a soft pink-coated paper embossed with a fine feather design. The cellophane is secured with scotch tape. Printing on the box top is in a rather pale blue. At the center of the main panel is a gold embossed seal in the shape of opposing arrowheads in a five cornered figure.

Design: The only illustrative design on the main panel of the box top is on the gold embossed figure at the center. This contains two figures of griffins holding a castellated crest. The words "imperial chocolates" are embossed above and below the illustration. Descriptive copy is at the extreme upper left and lower right corners.

Appearance on Opening: Two layers of light and dark chocolates containing a variety of centers. The pieces are about medium size and appear to be machine coated. Stringing and gloss are very good and the flavors, while a little strong, are not unpleasant.

Findings: Tissue pad above upper layer. Also a wax paper liner. Candy is in brown glassine cups. There is a white rough-cut layerboard between upper and lower layers, also another piece of protective wax paper. A double criss-cross rough-cut divider breaks up the bottom layer.

Sales Appeal: At 60c retail this should be a fairly good seller in the drug store and department store trade, especially if the box is shown in open display.

Display Value: Not too good. It is felt that this particular pink is not good when used for a chocolate assortment. Almost any other color would have given this box more punch. There is not enough contrast between the color combinations used.

Comment: A straight black for the lettering on this box would have been much more readable; the blue used at present is well nigh illegible. Then, there is not enough contrast between the pink of the box paper and the gold of the center embossed panel. Just a slight change in the color combinations would have resulted in a real sales-compelling box, for the design idea in its simplicity has potential strength.

Studio Chocolates

1 lb.—45c

Code 11941—Description: Full telescope box, cellophane wrapped covered with a flint coated stock which is embossed in a waffle pattern. Lettering is in gold outlined in red. Cellophane is secured with scotch tape.

Design: The design on this box is what one member described as "horsey." In other words, the script outline lettering is too heavy and large to retain that dainty feeling we like to associate with a "home-made" box—which this assortment is supposed to imitate. At the lower left and upper right, four vertical parallel lines of gold and red form a rough center panel in which the name of the candy is written in bold script letters. One line runs at an angle, and three lines are horizontal. Other copy is in plain small type on the side walls and upper panel.

Appearance on Opening: Two layers of large-size chocolates, machine-dipped in light and dark coating and containing a variety of soft and chewy centers. Stringing and gloss are good as are the flavors.

Findings: Tissue padding above upper layer, protected from candy by a sheet of wax paper. Candy is in brown glassine cups. There is a plain white layer board above lower layer and this is separated from the candy by a wax paper sheet.

Sales Appeal: Designed for drug store trade, the purpose of this box is to afford a handy pick-up assortment for the casual customer coming to this market for other things and taking a box of candy home with him as an afterthought. The price has gone up on this assortment in the past several months, but originally it was set up to sell for around 39c. With refinement in the design of the box top illustration, this would have fairly good appeal, and it isn't too bad now.

Display Value: The manufacturer puts these boxes up in 12-box assortments in a carton that can also be used for display purposes. Displayed it this way, it probably shows to advantage in the retail outlet.

Comment: The large and rather indelicate lettering used on this box gives it a gross feeling that definitely places this merchandise in the "cheap" class. Yet the candy is not "cheap." If the design were refined, the box would be more in keeping with the candy it sells. And it would sell more candy.

Silver Package

1 lb.—39c

Code 111041—Description: Cellophane wrapped, full telescope box overwrapped in a foiled (silver) paper printed in black. The box paper is embossed overall with a floral design. Cellophane is secured with scotch tape.

Design: At the left on the main panel, a silhouette sketch of a woman in formal attire entering a drawing room. The silhouette effect if achieved by use of black ink for the imprint. At the right of this in large old-English lettering the name of the assortment, and above this, on one line and in script lettering, a description of the type of chocolates contained in the package. Name of manufacturer is at lower right in small type. Listing of ingredients and list of individual types of pieces are on the front wall panel, also in black type.

Appearance on Opening: A two-layer assortment of light and dark chocolate coated pieces with a variety of centers in various flavors. Candy is described as "hand-rolled and hand-dipped". Stringing is not too good considering that the pieces are hand-dipped. Strings are not sharp enough, indicating that chocolate was too warm and soft when pieces were dipped, or cooling was faulty. Gloss is fair.

Comment: This is unquestionably a stock design for a low-cost box. Yet if the silver were printed with a red shade or even a strong darkish blue, the whole box would have a much more attention-compelling character. Use of two-color printing would give the real "punch," but that, too, would increase the cost of the box somewhat. At that, a two-color job might be worth the extra expense in terms of increased sales.

CONFECTIONERS' BRIEFS

Marshall Field Candy Appoints Knechtel

Herbert Knechtel

Herbert Knechtel has been placed in complete charge of candy production for Marshall Field & Co., Chicago department store. The appointment was made late in September. Mr. Knechtel comes to the Field organization with a strong background of quality candy production. Born in Canada, he came to the state of Washington as a boy of 17. His first job was with a small jelly manufacturing concern, where he learned some of the fundamentals of candy making. Later he became a candy maker's apprentice and eventually graduated into a full-fledged candy maker. He acquired a candy kitchen and a small chain of high class retail candy stores then known as "Robinettes." He disposed of this business in 1933 and joined the retail firm of Fred Meyer, Inc., Portland, Oregon, who manufacture their own candy and operate 12 large retail stores. He remained with this firm until September of this year, when he took up his new position with Field's.

SPAB Prepares to Ration Goods for All Industry

The Supply Priorities and Allocations Boards ordered the Office of Production Management last week to obtain detailed 1942 production programs covering every industry, as a further step to actual rationing of all critical materials, it was reported by the *Chicago Daily News* under a Washingon, D. C., dateline. The sweeping survey will cover defense as well as civilian production. It is designed to give defense officials a clear overall picture of the nation's total raw materials requirements in relation to available supplies. The action was described as a "transitional step" in the direction of an overall allocations system, designed as a more workable substitute for the priorities system in putting prime defense needs ahead of lesser defense needs and civilian requirements. Each industry must supply complete information on its month-by-month needs for production of military, industrial and civilian items and essential public services.

Illinois Trade Mark Statute Amended

Confectionery manufacturers in Illinois are reminded of an amendment in the state's Trade Mark Law which requires that "each holder of a registration for a label, trade mark, term, design, device or form of advertisement as provided for in this Act (State Trade Mark Act) shall, not later than Jan. 1, 1942, and every eight years thereafter, file a report setting forth the name of the

BOOKS ABOUT CANDY MAKING

THE PROBLEM OF CHOCOLATE FAT-BLOOM

By Robert Whymper.....$2.50 in U.S.A., $3.00 Elsewhere

A scientific discussion of fat-bloom and what can be done to prevent it. After establishing the fact that cacao butter is largely to blame for fat-bloom, or "graying," the author describes various fractions of different melting points in cacao butter, also crystallization and the part it plays in fat-bloom. The influence of nut-oil and milk-fat on the tendency to form fat-bloom is discussed as well as storage conditions.

CACAO FERMENTATION

By Arthur W. Knapp.....$2.50

A complete treatise on the methods of preparing cacao for commercial use. The book contains chapters on the fermentation of the pulp, changes in the interior of the bean, the production of acetic acid, ripeness of the pods and improved methods, alternative methods to fermentation and production of armoa, temperatures of fermentation, and information about drying.

FOOD TECHNOLOGY

By S. E. Prescott and B. E. Proctor.....$5.00

Covers the broad field of sources, methods of handling and manufacture of the principal commercial food products. The book emphasizes the fundamental principles involved in the various methods of food manufacture and treatment rather than to give highly detailed accounts of the manipulations carried out in each particular case.

RIGBY'S RELIABLE CANDY TEACHER

By W. O. Rigby.....$3.00

Reveals valuable secrets of candy making through 900 trade-producing formulas. Contains valuable information for the experienced and inexperienced candymaker, including pointers on purchasing equipment for a new shop, buying raw materials, arrangement of the shop, a dictionary of candy-making terms, a condensed table of candymaking helps, answers to questions commonly asked about candymaking troubles.

CHOCOLATE COATING CANDIES BY MACHINE

By Mario Gianini.....50c

A primer for the operator and for everyone else who is active in or connected with chocolate work. Written in simple understandable language it is an unusual accumulation of first-hand information on the subject of coating machines.

SWEET MANUFACTURE

By N. F. Scarborough, A.M.I., Mech. E.....$3.25

A practical up-to-date book on sugar confectionery. CONTENTS: Raw Materials; Sugar Boilings; Caramels, Toffees, Fudges and Nougats; Jellies and Gums; Chocolate, etc., etc.

FRUIT PECTINS

Their Chemical Behavior & Jellying Properties

By C. L. Hinton, F.C.I.....$1.75

This report is based on work carried out during a period of several years. It will be of real value to those who are working on the many problems associated with pectin.

HANDBOOK OF FOOD MANUFACTURE

By Dr. F. Flene & S. Blumenthal.....$6.00

A collection of practical tested formulae, descriptions and analysis of raw materials for the confection, ice cream, condiment, baking, beverage, essence, flour, preserving, salad dressing and allied industries.

FOOD INDUSTRIES MANUAL

Compiled by well known authorities.....$4.00

A technical and commercial compendium on the manufacture, preserving, packing and storage of all food products. Contains a section on sugar, confectionery, candy, chocolate, jams, jellies.

CAKE MAKING AND SMALL GOODS PRODUCTION

By James Stewart & Edmund B. Bennison, M.Sc.....$6.00

This book contains chapters on Baking of Confectionery Goods, Preparation of Fondants, Confectionery Making Machinery, Flours used in Confectionery, Moistening Agents, Eggs, Sugars, Chemical Aeration, Flavorings, Essences and Essential Oils, Spices, Colors and Coloring Matters, Nuts Used in Confectionery, etc.

CHEMICAL FORMULARY

H. Bennett, F.A.I.C.

Thousands of practical formulae. A condensed collection of new, valuable, timely modern formulae for making thousands of products in all fields of industry. Volume I $6.00, Volume II $6.00, Volume III $6.00, Volume IV $5.00. Each volume is different. There are many formulas on candies, flavors and allied products.

Book Sales Department

The Manufacturing Confectioner

400 W. Madison Street **Chicago, Ill.**

present holder of the label, trade mark, term, design, device or form of advertisement; whether he holds such label, trade mark, term, device or form of advertisement as an individual or on behalf of a corporation or partnership; the manner in which he acquired such right, that is, as original registrant, assignee, or otherwise; whether such a label, trade mark, term, device or form of advertisement is actually in use or has been abandoned and the class of goods to which such label, trade mark, term, device or form of advertisement applies with regard to the classification established." Report forms are available from the Secretary of State. Filing fee for the report is $1.

Western Salesmen Meet In Chicago, Dec. 11-13

Western Confectionery Salesmen's Association will hold its 27th Annual Convention at the Congress hotel, Chicago, December 11 ot 13, it was announced by George Burleson, secretary. No details of the program are available as yet, but plans under way now are designed to make this the best convention in many years. A drive for membership has been underway for some time.

Anticipating Layoffs? Report to Employment Offices

Employers who anticipate layoffs in their plants because of shortages of materials or curtailment orders were recently urged by Federal Security Administrator Paul V. McNutt to report their problem at once to the nearest State Employment office. This is the first step, the administrator said, in obtaining government action to determine the possibility of utilizing the plant and its workers for defense production.

Strike Closes Douglas Candy Factory in St. Joseph

Douglas Candy Co., St. Joseph, Mo., which had been forced by a strike in early September to suspend operations, will not re-open, according to an announcement made recently by Charles Douglas, general manager. The firm which has been making candy since 1849 was prevented from maintaining operations by a strike called by the Bakery and Confectionery Workers Union and the Teamsters, Chauffeurs, Drivers and Helpers Union, both affiliated with the AF of L.

R. A. Johnson of Cleveland was recently elected president of the Buckeye Candy Club at the annual election of the Club held in Columbus. F. C. Shultz of Toledo is vice president, and C. J. Beck of Columbus is secretary-treasurer.

Robert H. Welch, Jr., sales manager for the James O. Welch Co., Cambridge, Mass., has recently published a book titled "The Road to Salesmanship," based on his own 19 years' experience in selling.

Kraft Cheese Co., Chicago, has entered the prepared cocoa-mix market with announcements in national weekly magazines of its new product. The mix is being sold in one-ounce bags, and half-pound, pound and two and a half pound tins.

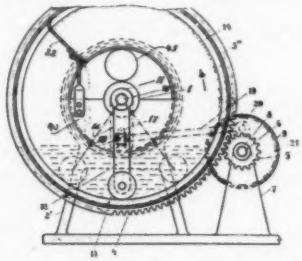
PATENTS

The following memorandum relating to Patents is made available through an arrangement with James Atkins, registered patent attorney, Munsey Building, Washington, D. C. The trade-marks were recently published by the U. S. Patent Office and, if no opposition thereto is filed within 30 days after the publication date, the marks will be registered.

2,236,554

APPARATUS FOR PROCESSING CHOCOLATE

Kurt Wiemer, Dresden, Germany, assignor to the firm J. M. Lehmann, Dresden, Germany. Original application October 13, 1938, Serial No. 234,839. Divided and this application April 10, 1939, Serial No. 267,111. In Germany October 15, 1937. 3 Claims. (Cl.99—236)

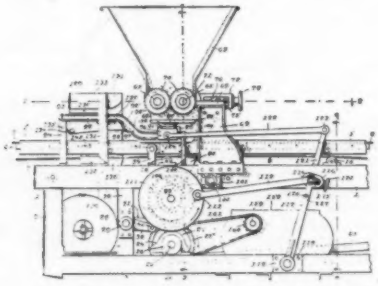


1. In an apparatus for processing chocolate, in combination a container for holding a quantity of chocolate; means for agitating said chocolate in the container; and means associated with said container for aerating said chocolate while being processed, said last named means being adapted to expose said chocolate continuously to air on a surface of at least 2 square meters for each 100 kilograms of chocolate in said container.

2,238,164

METHOD AND MACHINE FOR MANUFACTURING MARSHMALLOWS, OTHER CONFECTIONS AND FOOD PRODUCTS

Edward H. Edwards, Chicago, Ill. Application February 12, 1940, Serial No. 318,621. 8 Claims. (Cl. 107—54)

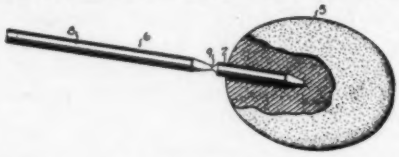


1. In a machine for making confectionery and other food products of constituent materials of similar original plastic consistencies, a supply container for the constituent material, said container having feeder means for intermittently expressing a predetermined quantity of the material through and from a definitely restricted outlet orifice at the bottom of the container, a conveyor traveling intermittently and normally at a substantial distance beneath said container outlet orifice, timed actuating means for raising and lowering the conveyor during each period of rest in its intermittent travel, whereby the conveyor, just prior to each feeding actuation of the feeder means, is placed in an initial uppermost effective material-receiving position closely adjacent the container outlet orifice, then moves downwardly simultaneously with and at substantially the speed of exudation of the body of material from the outlet orifice at the start of and during the full feeding actuation of the feeder means so as to support the under part of the body of exuded material and maintain the entire body in the form, both longitudinally and transversely, as created only by the expressed passage of the material through the outlet orifice, and after termination of material exudation moves further downward at increased speed away from the body of exuded material and is brought to rest in a position definitely spaced thereunder, whereby the body is left suspended from the outlet orifice, and means operating intermittently for severing the suspended body of exuded material at the outlet orifice.

2,246,778

SAFETY HANDLE FOR CONFECTIONS

Edward E. Cahoon, Racine, Wis. Application December 21, 1939, Serial No. 310,418. 4 Claims. (Cl. 99—138)

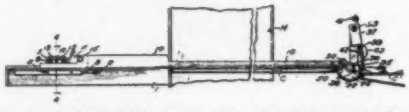


1. A safety stick confection comprising: a mass of solidified confection, and a stick, one end portion of which stick constitutes a handle when the other end portion thereof is embedded in the mass of the confection, both of said end portions being of substantially the same cross section and integrally united with one another by an interposed, relatively weak safety portion, so positioned in the length of the stick as to be exterior of such mass of confection, said safety portion being of less cross section than said end portion and of the same thickness at any two cross axial planes normal to one another.

2,248,688

CANDY MAKING MACHINE

Frank Petrovic, Ottumwa, Iowa. Application April 10, 1941, Serial No. 387,971. 9 Claims. (Cl. 107—4)

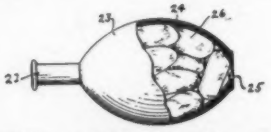


1. In a candy making machine having a candy receiving conveyor on which the plastic confection is deposited in a plurality of laterally spaced streams and a cooling conveyor aligned with the receiving conveyor to carry the confections away, common means for severing the streams into unit confections and spacing the confections in the direction of travel on the cooling conveyor.

2,248,963

CONTAINER FOR CONFECTIONS

Lloyd G. Copeman, Flint, Mich., assignor to Copeman Laboratories Company, Flint, Mich., a corporation of Michigan. Aplication May 18, 1937. Serial No. 143,249. 5 Claims. (Cl. 99—180)

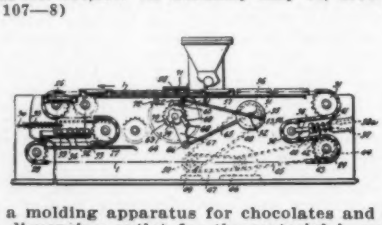


1. In combination, a confection and a container therefor comprising, an elastic rubber inflatable balloon having its closed end portion telescoped within its open end portion so as to form a double walled container for said confection, and having a relatively small orifice for normally preventing said confection from being inadvertently dispensed and through which said confection may be conveniently dispensed by reason of the elastic characteristics of said container.

2,240,214

CONVEYOR SYSTEM FOR THE MOLDS IN MACHINES FOR CASTING OR MOLDING CHOCOLATE OR LIKE MASSES

Max Heidelmeyer, Niederseidlitz, and Felix Becher, Dresden-Mockritz, Germany, assignors to the firm of J. M. Lehmann, Dresden, Germany. Application January 21, 1938. Serial No. 186,236. In Germany May 12, 1936. 6 Claims. (Cl. 107—8)



1. In a molding apparatus for chocolates and the like in which a dispensing outlet for the material is provided and in which a conveyor carrying molds is continuously moved in the same direction at constant speed, the combination comprising a horizontally slidable slide, sprocket wheels mounted on said slide over which said conveyor passes so as to form the upper reach of a loop in the vicinity of said outlet and adjustable drive means for reciprocating said slide to produce an alternate acceleration and deceleration of said loop portion adjacent said outlet.

Callerman Company In "Chicago At Work" Broadcast

An interesting feature of a Chicago radio station is a program titled "Chicago at Work." During this half hour broadcast the radio audience is taken directly into manufacturing plants and business institutions for the purpose of learning at first hand, through interviews with officials and workers, just how every-day items are

made, processed, distributed and sold. Recently the Callerman Company, food brokerage house well known to the confectionery industry in and about Chicago, furnished the material for the broadcast. The material covered the manufacture and processing of raw materials for the manufacturing confectioner, manufacturing baker and ice cream manufacturer, and also the processes used in developing certain nationally advertised grocery specialties. The discussion was led by G. C. Callerman, head of the firm.

Mohr Named General Sales Head of A-B Corn Syrup

Anheuser-Busch, Inc., St. Louis, Mo., announced recently the appointment of Arthur C. Mohr as general sales manager of the corn syrup division, to succeed Harry Crist, who resigned recently. Mr. Mohr was transferred from the Louisiana branch where he had been manager of the table syrup division of the company.

Leverone of Stein, Hall Heads Ill. Commerce Chamber

Louis E. Leverone, vice president and general manager of Stein, Hall Manufacturing Co., Chicago, Ill., was recently elected president of the Illinois Chamber of Commerce by the board of directors at the organization's annual convention.

Gurnham Now Associated With Fred S. Carver

C. Fred Gurnham is now associated with the firm of Fred S. Carver, will known manufacturer of cocoa presses and hydraulic equipment. Mr. Gurnham is carrying out research on hydraulic presses of cocoa and chocolate products, and vegetable oils. Prior to his association with Fred S. Carver, Mr. Gurnham had been on the chemical engineering faculty of Pratt Institute.

Set Peanut Marketing Quota at 627,000 Tons

Secretary of Agriculture Claude R. Wickard today announced a 1942 marketing quota of 627,900 tons of peanuts for the edible trade. The allotment will be 1,610,000 acres on the basis of this quota, or the same as that for the 1941 crop. In addition to the peanut acreage allotment for the edible trade, the food-for-freedom program has set aside an additional 1,900,000 acres of peanuts for oil purposes.

STATEMENT OF OWNERSHIP, MANAGEMENT CIRCULATION, ETC.

Required by the Act of Congress of March 3, 1933, of The Manufacturing Confectioner, published monthly at Chicago, Illinois, for October 1, 1941.

State of Illinois, County of Cook, ss.

Before me, a notary public in and for the State and County aforesaid, personally appeared Mrs. Earl R. Allured, who, having been duly sworn according to law, deposes and says that she is the Publisher of the Manufacturing Confectioner, and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher—Mrs. Earl R. Allured, 400 W. Madison St., Chicago, Illinois.
Editor—O. F. List, 400 W. Madison St., Chicago, Illinois.
Business Manager—Mrs. Earl R. Allured, 400 W. Madison St., Chicago, Illinois.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) The Manufacturing Confectioner Publ. Co., Mrs. Earl R. Allured, 400 W. Madison St., Chicago, and A. Goelitz, Deerfield, Illinois.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other persons, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

PRUDENCE W. ALLURED, Publisher

Sworn to and subscribed before me this 6th day of October, 1939.

(Seal) BERTHA E. WALKER, Notary Public.

(My commission expires March 3, 1942)